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COLONIAL REPORTS—MISCELLANEOUS.

No. 19.

SELECTIONS FROM
COLONIAL MEDICAL REPORTS
FOR 1900 AND 1901.

(For previous Reports, see No. 16.)

Presented to both Houses of Parliament by Command of His Majesty.
June 1902.



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COLONIAL REPORTS.

The following, among other, reports relating to His Majesty's Colonial Possessions have been issued, and may be obtained from the sources indicated on the title page :—

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PAPER ON DISEASE IN ANGUILLA,

By J. NUMA RAT, M.R.C.S.

As a supplement to a previous paper on the Vital Statistics of Anguilla,* I beg to offer the following sketch of the diseases prevalent in this island.

I send herewith a table showing the mortality during the years 1892-1900, when a medical officer was stationed here.

The 511 deaths registered during that period are apportionable as follows:—

I.

Diseases of digestive system	83
Diseases of nervous system	74
Tubercle	59
Malarial fevers	39
Diseases of circulatory system	31
Diseases of respiratory system	23
Infectious fever	19
Diseases of urinary system	12
Septic fevers	10
Other diseases, each causing less than 10 deaths	35
	—385

II.

Stillbirths	30
Malformations, &c.	29
Age	48
Effects of Poisons	1
Injuries	7
Unknown Causes	11
	—126
	511

* Colonial Reports.—Miscellaneous, No. 12.

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Group I. includes clearly specified diseases, and Group II. unspecified diseases and deaths from causes other than disease. It should be observed, however, that under the heading "Age" are included many deaths in persons above 70 which were due to specifiable causes, *i.e.*, causes other than simple senile decay, and that the mortality assigned to Tubercle and Malarial Fever should be represented by higher figures, some of the deaths which should have been assigned to these diseases having been probably referred to affections of the respiratory or digestive systems.

The high mortality due to disease of the digestive and nervous systems is here, as elsewhere, explicable by the frequency of deaths from these causes among the infant population.

FEVERS.

Infectious Fevers.

There is no record of the existence here at any time of true Yellow Fever or Cholera.

The last epidemic of Small-pox occurred in 1863, but the infection did not spread widely.

Scarlet Fever, which is very rarely introduced into any of the West Indian islands, is unknown here.

Diphtheria has not prevailed in recent times, at least, and has doubtless been as seldom seen here as in the West Indies generally.

The Infectious Fevers which are epidemic at long intervals in this island are Varicella, Measles, and Whooping Cough. No death has ever been registered as the result of Varicella. Measles prevailed here in 1884 and 1895, and Whooping Cough in 1894-95 and 1888-89, causing comparatively few deaths.

A small mortality is assigned to Influenza in 1892, 1895, and 1896.

Malarial Fevers.

Malarial Fevers are endemic in this island, and become epidemic during the last and first quarters of consecutive years. They are generally amenable to quinine when this drug is administered sufficiently early, but its administration is sometimes fatally delayed to allow previous experiments to be made with the concoctions of "bush doctors." They are mostly quotidian, but cases of tertian are occasionally met with. The malignant kind does not occur here, neither does "black-water" fever. The number of persons attacked by Malarial Fever in Anguilla in proportion to its population is very large, and the wide prevalence of the disease necessitates a very extensive

gratuitous distribution of quinine by the Government. The quantity of the drug which is sufficient to cut short an attack of fever will not, of course, prevent re-infection. And so, much to the dissatisfaction of the people and to the discredit of the quinine treatment in their minds, many suffer from several attacks of fever during the fever season.

Though these fevers act injuriously on the health of the population by their after-effects on the system, inducing, as they do, anæmia, neuralgia, dyspepsia, &c., they have not hitherto impressed on the Anguillans generally that cachectic condition which is observable in the European inhabitants of malarial countries, malarial cachexia being probably dependent on race and the nature of the malarial germ. The white and coloured people are certainly anæmic in those parts in which the fever prevails most widely and persistently, but there are not to be seen here to the same extent the enlarged livers and spleens which are so conspicuously frequent among the Indians and half-breeds of South America.

The prevalence of malaria is out of proportion to the area and number of the swamps in the island, and is not dependent on their proximity. And, considering the rocky and porous nature of the soil and the frequent droughts, it must be assumed that the malariferous mosquito needs but little moisture for its propagation.

It is the opinion of the most intelligent of the oldest inhabitants that malarial fevers have been more prevalent here in recent than in past years, and that every epidemic is more extensive than its predecessor. This may be explained by the more frequent and general intercourse between Anguilla and some of the very malarious islands in its neighbourhood, and by the consequent introduction of a larger number of fever cases which act as centres of infection.

A very large majority of, if not all, the children suffer from malarial fever at some time or other before their fifteenth year. In those under seven years the fever is sometimes accompanied by nephritis, which is indicated by the anasarca complicating the attack.

Here, as in other parts of the Colony, cases of fever are met with, which, in their duration, their symptoms, and their resistance to quinine, bear a striking resemblance to typhoid. They occur generally in white and coloured children, between the seventh and fifteenth years of life, less frequently among those older or younger, and only occasionally among white and coloured adults. Quinine, in the largest doses, has no effect on the course of these fevers, which are generally of a remittent, and sometimes of a continued type. The pyrexia, which hardly ever exceeds 105° F., is the only symptom, except constipation usually, and diarrhœa occasionally. When the latter occurs the stools are of the same colour as those of typhoid, but without

ANGUILLA. the "shreds" characteristic of the latter, and there are no abdominal symptoms like tympanites or hæmorrhage indicating intestinal lesions. Neither is the condition of the tongue like that of typhoid. As this form of fever occurs in various parts of the Colony, it is certainly desirable that the blood be microscopically examined to decide whether hæmamaebæ are present in such cases or not.

Though this fever may not be typhoid, it is possible that among the anomalous cases of fever met here, and which are not distinctly malarial, true typhoid may be found to exist.

Septic Fevers.

According to my experience septic fevers are seldom seen in the tropics, and it has always been a matter of surprise to me that, notwithstanding the insanitary surroundings of the lower classes in these islands, puerperal fever does not occur more extensively among them. This is doubtless explicable by the fact that this fever has its origin very frequently in scarlet fever and erysipelas, which seldom occur in these parts. Anguilla is no exception to the general comparative immunity of the West Indies from septic fevers. The puerperal mortality here is very small, and the few deaths in childbed which have been recorded would not have occurred had the cases received the prompt intelligent attention which would have been granted to them in more advanced places. During the past three years there has only been one death in childbed, from exhaustion, due to prolonged labour, and this fatal case was the result of the ignorance of those in attendance who sent too late for professional assistance.

True erysipelas, as I have stated, is rare in these parts. There is an erythema of the legs which accompanies elephantiasis which is misnamed "erysipelas" in the West Indies, and dermatitis occurs in various circumstances, but the genuine idiopathic erysipelas of temperate climates, with its well-defined constitutional symptoms, must be very seldom met with in the tropics, as no case of that kind has ever come under my notice in the different countries in which I have practised.

Gout and Rheumatism.

Gout is occasionally seen in the white and coloured population of the West Indies, but I have never observed it in this island, even among the whites. A diet of fish and sweet potatoes would not be conducive to this affection. Rheumatic fever is a disease of temperate climates, and it has never come under my observation either here or in any other part of the tropics. Chronic rheumatism occurs here among the aged, but only to a comparatively small extent.

Malignant Tumours.

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The white portion of the population are particularly prone to cancerous affections of the head and neck, such as crateriform ulcers, rodent ulcer, and epithelioma. These chiefly occur among those of the whites whose diet is very poor, and who are much exposed to the sun and sea spray. The skin of the unprotected parts of their bodies loses its healthy appearance, and becomes either waxy pale, atrophied, and freckled, or of a brick red colour, and suggests a suitable soil for the development of malignant germs. The blacks, though liable to a small extent to cancer in other parts of the body, show none of these alterations of the skin, nor suffer from cancerous affections of the head and neck like the whites. A few deaths from cancer are recorded as having occurred among the black population prior to my arrival in the island, but, during my residence of three years here, I have only seen one case of cancer among the blacks—a tumour of the rectum.

Tubercle.

Lupus and other tuberculous skin diseases and tuberculous affections of the joints must be very rare, as I do not remember treating any such cases. But phthisis is exceedingly common. It is rarely seen in those under fifteen, but it chiefly affects the population between fifteen and twenty-five. Its peculiarity of attacking several generations of the same family is very noticeable here. Apart from the sympathetic disturbance of the digestive organs common in the early stage of the disease, these appear in many cases to be the first attacked, the lungs becoming subsequently infected.

It is possible that a diet too exclusively vegetable predisposes to phthisis, and that the high winds which prevail here excite and intensify the disease.

Whooping cough, by its injurious effects on the tissues of the lungs, appears to have indirectly originated some of the existing cases.

Venereal Diseases.

Gonorrhœa is occasionally brought to the notice of the Medical Officer as the result of lifting heavy weights, and soft buboes are at times shown as examples of over-exertion, being known as "strain-risings." Stricture is somewhat prevalent in consequence of long standing gonorrhœa. I have never seen a case of syphilis in its primary stage in Anguilla. And I may add that it is very rarely indeed that I have seen the initial lesion of syphilis in a black man in any country. Either the syphilitic chancre in the negro is a much less serious affair than it is in the European, or the former considers it too trifling, whatever

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its severity, to trouble a doctor about. It is reasonable to assume that in a place like St. Kitts, in which syphilis prevails so generally, the initial lesion of the affection would be modified by the presence of an inherited syphilitic taint. Two cases of syphilitic buboes and two of syphilitic rheumatism have come under my observation during my three years' residence here, and only one case of syphilitic disease of bone. I have treated four cases of secondary eruption during the same period.

The small number of still-births, the low infant mortality, and the fine physique of the children are proofs of the rarity of syphilis in the island. But it is unfortunately being repeatedly introduced here by sea-faring Anguillians on their return from St. Kitts and other highly syphilized places in the neighbourhood. The regular yearly exodus of the young men who go to San Domingo in search of work involves an extensive infection of the female population on the return of the former. I have found a great deal of ignorance on the part of the women with regard to the symptoms of syphilis, and the disease is likely to be widely spread as a result of this ignorance.

Leprosy.

Four deaths from leprosy have been registered—as follows—from 1883 to the present:—

Year of Death.	Age.		Complexion.
	Male.	Female.	
1891 	65	—	Coloured.
1891 	—	70	Black.
1891 	—	60	Coloured.
1892 	—	52	Black.

There are four lepers now in the island with unmistakable symptoms of the disease in its neuroplastic form. These are two men and two women of from 45 to 55 years of age. The two men and one of the women are coloured and the other woman is black. They have all been suffering from leprosy from 25 to 35 years. The histories of these lepers correspond with those of almost all the other lepers whose cases I have studied, and they serve to show what is generally and very nearly always to be found with regard to leprosy, that a leper's parents were not affected with the disease, that he is the only

one of a probably large family who has been so afflicted, that none of his children have become leprous, and that his wife has not contracted the affection from him. He appears to have been singled out of a large number of persons by the disease, and he has lived in the closest intimacy with many without communicating it to them. It must be a remarkable disease which is characterised by such peculiarities. It behaves very differently from those diseases in which heredity and contagion are recognizable. I am not, of course, referring to those exceptional cases which appear to prove either hereditary transmission or any other communicability in any other form. I allude to the very large majority of lepers whose family histories are such as I have sketched it above. The lepers, dead and living, of Anguilla, appear to have been the first and last and only ones in their respective families in whom leprosy appeared.

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I have not been able to ascertain whether the dead lepers ever left Anguilla. But of the living ones I know that two lived for some time in Trinidad and one in St. Kitts. The fourth states that she never left Anguilla. She, however, resided in a small village by the sea in this island where one of the dead lepers lived. My enquiries on these points were intended to elicit whether the disease had been contracted in Anguilla or abroad. The three lepers who lived abroad resided when in Anguilla in places in which they did not come in contact with lepers, and there is therefore the probability that they acquired their leprosy abroad, in two of the cases in Trinidad, and, in one, in St. Kitts.

Judging from the condition of each of the existing lepers, the disease is either dormant, and so may invade the system still further at some future date, or no longer exists, the present symptoms being only after-effects. The patients have lost their toes and fingers, and their gait, in consequence of the condition of their feet, is ataxic and spasmodic. But there are no readily observable symptoms of the disease in the rest of their bodies. But for their mutilated extremities, there is nothing in the appearance of their well-developed and well-nourished bodies indicative of leprosy, except a slight unilateral paralysis of the facial muscles.

Though the four persons above referred to are the only ones in which leprosy is plainly and pronouncedly manifest, I have noticed a few cases of the disease in some who are afflicted with apparently mild attacks of the dermoplastic form, as shown by the nodulated condition of their noses and ears, and a few others of the neuroplastic kind with contracted fingers. These are evidently in the early stage of the affection, but the slow development and the mildness of the symptoms indicate that these lepers are not suffering from as grave a type of leprosy as those first mentioned.

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I have also observed several persons affected with multiple ainhum, several toes having been lost from one foot. Assuming this condition to be leprotic, there are no other easily recognizable symptoms of leprosy in these individuals, who appear to be well developed and well nourished, and in excellent health. The loss of their toes has, of course, given them a peculiar gait, the tendency being to walk on the heel only of the affected foot.

Yaws.

Frambœsia is unknown here.

Parasitic Diseases.

Several cases of elephantiasis of the feet and legs exist here, but the disease is only moderately common. It never develops in any case to the extent in which it is seen in some patients in other parts of the tropics. In a few almost white people at a certain part of the island it is complicated by the development of nodules, which tend to break down and produce deep ulcers. I have seen only one case of elephantiasis of the scrotum, which was only slightly enlarged. Three cases of chyluria in children have been treated by me since my arrival here.

Non-malignant Tumours.

Tumours of a non-malignant nature have never been brought to my notice, if I except two or three cases of cheloidal growths of the ear due to piercing that organ for the purpose of wearing ear-rings.

Effects of Poisons.

Fish poisoning occurs here occasionally, and is the only form of poisoning which has been brought under my notice.

Injuries.

Injuries are rare and are generally due to accident. The Anguillians seldom use violence to one another.

Stillbirths.

Stillbirths are few. It is peculiar that none were registered during the years 1892, 1893, or 1894, while, in the six years following, the annual number varied from three to nine, and the average yearly was five. Assuming five to be the average number of stillbirths occurring yearly in Anguilla, their proportion

to the total births, which average 145, is 3·4. The corresponding proportion for St. Kitts was, in 1898, 8·0, and, in 1899, 8·6.

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Malformations.

Deaths from malformations, &c., including congenital debility, averaged 3·2 yearly from 1892 to 1900. The mortality from these causes was four in 1898 and four in 1899, in Anguilla, while the corresponding figures for those years for St. Kitts were 37 and 24. Allowing for differences of population the death rate in this direction is less than in St. Kitts, though not as conspicuously so as in the matter of stillbirths.

Diseases of Special Senses.

Otorrhœa is only occasionally observed in children under seven years of age. Conjunctivitis is more frequent among them, but is not very common. Tineatarsi now and then appears among children about four or five years of age. Cases of opacity of the cornea are seen here and there.

Among adults the chief diseases of the eye are pterygium and that thickening of the palpebral conjunctiva which simulates trachoma, the latter not having been observed here by me.

Diseases of the Nervous System.

Neuralgia of the head and neck is a very common affection in this island, patients suffering severely from it for weeks and obtaining very little relief from any of the usual drugs, except quinine.

Trismus neonatorum is not as common perhaps as in St. Kitts. Its prevalence is shown by the following table showing the mortality from it during the years 1884 to 1900:—

Year.	Deaths.	Year.	Deaths.	Year.	Deaths.
1884	3	1890	5	1896	2
1885	1	1891	3	1898	5
1888	4	1892	2	1899	1
1889	3	1895	1	1900	2

But, though only one death was recorded in 1885 from trismus, and no deaths were attributed to it in 1886 and 1887, the causes

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of four deaths in 1885, occurring in children at the age when they generally die of trismus, were declared to be unknown, and seven similar deaths in 1886, and four in 1887, were stated to have been due to natural causes.

I have not seen a case of tetanus since I have been here, but the death register shows the following deaths from this affection during the period 1884 to 1897, no deaths from it having been recorded since the latter year:—

Year of Death.	Age.		Complexion.
	Male.	Female.	
1884 	2	—	Black.
1888 	6	—	Black.
1889 	11	—	Coloured.
1890 	17	—	Black.
	40	—	Black
1891 	—	34	Coloured
1893 	—	18	Black.
1895 	—	40	Black.
1896 	—	7	Black.
1897 	—	5	Black.

There is no death from tetanus recorded between the years 1884 and 1888, and there has been no mortality from the disease since 1897. The deaths from it have mostly occurred among those under 20 years of age.

Diseases of the Locomotory System.

Rachitis is practically unknown here. No cases of arthritis, except as gonorrhœal or syphilitic rheumatism or chronic rheumatism, have ever been brought to my notice.

Diseases of the Circulatory System.

Only two cases of heart disease have come under my observation. I have not observed any disease of the veins or arteries.

Diseases of the Respiratory System.

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Bronchitis is very common among children under seven years of age. Above that age, and up to fifteen, many children are very liable to repeated attacks of bronchitic asthma.

Diseases of the Digestive System.

The most common disease here is undoubtedly dyspepsia, and the patients who suffer from it are, with hardly any exception, women. The digestive power of the stomach must be over-taxed by the large quantities of vegetable food which the Anguillians find it necessary to consume to provide sufficient nourishment for their bodies. But as this is a condition of things which is as common to the men as to the women, it is difficult to understand why, as is generally the case in other countries, it is the women who present such a large number of cases for treatment. Is it due to the more sedentary lives of the latter and their greater leisure for meditating on their ailments? Or is it that in their case the digestive organs are disordered in their functions by displacements, functional disturbances, and diseases of the generative organs?

Diseases of the Urinary System.

No cases of diabetes have come under my notice. I have had only one case of Bright's disease under treatment. Cystitis is somewhat common in old men.

Diseases of the Generative System.

Leucorrhœa, amenorrhœa, and dysmenorrhœa are very common among nulliparas, and procidentia uteri among multiparas.

Diseases of the Integumentary System.

The commonest skin disease here is scabies, which prevails among the children, only rarely attacking adults. The parasitic affection known in the English islands as Latta, and, in the French ones as Lotah, is often seen among girls, occurring chiefly in those of fifteen and upwards. It sometimes attacks those below that age, and may be seen now and then even in children at the breast. But it is most commonly noticeable in women from fifteen up to twenty or twenty-five, after which it is rarely observed. The large majority of the sufferers from it are women, men being seldom affected by it. A patient lately under my care showed me two kinds of Latta, one on her head and neck, which was of the usual kind and which she called the white Latta, and another on her chest, which she called the black Latta, and which was of a slate colour.

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Other diseases of the skin are seldom seen here.

There is scarcely an ulcer anywhere, and this condition of things is in great contrast with what obtains in the Windward districts of Dominica, where ulcerated legs and feet are so frequently observed.

The lymphatic glands are seldom affected. When they enlarge, it is in connection with syphilis or elephantiasis. But I have never seen any instance of scrofulous inflammation of them. It is here, however, that I saw my first case of lymphadenoma. It occurred in a man of about 25 years of age, who died from the disease. Shortly after his death I saw another case in St. Kitts. In the former, the cervical glands were very much enlarged, and so were the internal abdominal ones. In the latter, the cervical were only moderately enlarged, and the disease manifested itself in the superficial glands of the trunk and upper part of the lower limbs.

CLASSIFICATION OF DEATHS DURING THE
YEARS 1892-1900.

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CLASSIFICATION OF DEATHS

B.—Black.

W.—White.

No.	CAUSES OF DEATHS.	NUMBERS OF DEATHS.															
		1892.				1893.				1894.				1895.			
		B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.
1	Infectious Fevers	1	1	1	3	—	—	—	—	6	1	1	8	2	1	1	4
2	Malarial Fevers	8	—	1	9	—	—	1	1	—	—	—	—	1	—	—	1
3	Septic Fevers	4	—	—	4	2	—	—	2	—	—	—	—	—	—	2	2
4	Gout and Rheumatism ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5	Malignant Tumours ..	—	2	—	2	—	2	—	2	—	—	—	—	—	—	—	—
6	Tubercle	5	—	1	6	4	—	—	4	5	—	1	6	3	—	1	4
7	Leprosy	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	Yaws	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	Venereal diseases	—	—	—	—	—	—	—	—	3	—	—	3	3	—	—	3
10	Parasitic diseases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11	Non-malignant Tumours..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12	Effects of Poisons	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—
13	Injuries	1	1	—	2	1	—	—	1	—	—	—	—	1	—	—	1
14	Stillbirths	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	3
15	Malformations	1	—	—	1	—	—	1	1	2	—	2	4	1	—	—	1
16	Age	6	1	—	7	1	—	—	1	9	—	1	10	6	1	—	7
17	Diseases of Special Senses..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
18	" Nervous System	10	—	2	12	5	—	2	7	9	—	1	10	9	—	—	9
19	" Locomotory "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
20	" Circulatory "	5	—	1	6	1	—	2	3	2	—	—	2	5	—	1	6
21	" Respiratory "	1	—	—	1	—	—	1	1	1	—	1	2	2	1	1	4
22	" Digestive "	3	1	—	4	3	1	3	7	6	—	2	8	13	2	5	20
23	" Urinary "	1	—	—	1	—	—	—	—	1	—	2	3	3	—	—	3
24	" Generative "	1	—	—	1	—	—	—	—	1	—	—	1	1	1	—	2
25	" Integumentary System.	2	—	—	2	2	—	—	2	1	—	—	1	—	—	1	1
26	Unknown	1	—	—	1	—	—	—	—	2	—	—	2	—	—	—	—
	Totals	51	6	6	63	19	3	10	32	48	1	11	60	50	6	15	71

DURING THE YEARS 1892-1900.

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C.-Coloured.

T.-Total.

NUMBERS OF DEATHS.

1896.				1897.				1898.				1899.				1900.				Totals.			
B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.	B.	W.	C.	T.
1	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	2	11	3	5	19
—	—	—	—	2	—	1	3	6	1	3	10	6	1	1	8	3	1	3	7	26	3	10	39
2	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	2	10
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	1	—	—	1	—	—	—	—	—	1	—	1	—	—	1	1	1	5	1	7
2	—	—	2	7	1	—	8	6	—	—	6	7	1	4	12	8	1	2	11	47	3	9	59
—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	6	1	—	7
—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	1	—	—	1	1	1	—	2
1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	1	—	—	1	6	1	—	7
4	—	—	4	8	—	1	9	5	—	—	5	2	—	2	4	4	—	1	5	23	—	7	30
6	—	—	6	2	—	—	2	1	—	3	4	3	—	1	4	5	—	1	6	21	—	8	29
3	1	—	4	1	—	1	2	7	—	2	9	7	—	—	7	1	—	—	1	41	3	4	48
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
4	—	4	8	6	1	2	9	8	—	2	10	3	1	2	6	2	—	1	3	56	2	16	74
—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	1	1	—
2	—	1	3	—	—	—	—	6	—	1	7	1	—	—	1	2	—	1	3	24	—	7	31
2	—	—	2	4	1	—	5	2	—	—	2	2	—	1	3	3	—	—	3	17	2	4	23
6	—	1	7	7	—	2	9	14	1	3	18	3	—	1	4	4	1	1	6	59	6	1	83
—	—	1	1	—	—	—	—	3	—	—	3	—	1	—	1	—	—	—	—	8	1	3	12
—	—	—	—	2	—	—	2	—	—	1	1	—	—	—	—	—	—	—	—	5	1	1	7
—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	1	—	—	1	1	7	—	2	9
—	—	—	—	3	—	—	3	—	—	—	—	—	2	2	3	—	—	3	9	—	2	11	—
33	1	8	42	45	3	7	55	59	3	15	77	36	6	15	57	38	3	13	54	379	32	100	511

BAHAMAS,
1900.

No. 2.

BAHAMAS.

RETURN OF THE STATISTICS OF POPULATION FOR THE YEAR 1900.

								Total.
Number of inhabitants in 1899								54,709
" Births during the year 1900								2,034
" Deaths " " 1900								1,231
" Immigrants " " 1900								
" Emigrants " " 1900								
Number of inhabitants in 1900								55,512
Increase								803

AVERAGE PER 1,000.

1899.		1900.	
Births.	Deaths.	Births.	Deaths.
41.1	24.7	42.7	25.8

METEOROLOGICAL RETURN FOR THE YEAR.

	Temperature.						Rainfall.		Winds.		Remarks
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January	140.0		77.4	66.1	11.3	71.8	.91	70.0	E.	5.2	
February	146.3		75.1	63.8	11.3	69.5	1.47	71.0	E.	5.5	
March	155.7		77.9	67.9	10.0	72.9	3.27	68.0	E.	4.7	
April	155.0		81.7	71.3	10.4	76.5	.49	76.0	S.E.	5.9	
May	150.0		84.5	74.1	10.4	79.3	7.37	74.0	N.E.	4.3	
June	156.0		88.4	74.7	13.7	81.6	2.51	72.0	E.	3.8	
July	160.3		89.4	75.1	14.3	82.3	6.68	72.0	E.	4.3	
August	160.0		97.6	75.8	14.8	83.2	2.64	65.0	E.	4.4	
September	154.7		88.5	72.4	16.1	80.5	14.51	72.0	E.	4.5	
October	144.0		85.5	73.8	11.7	79.7	8.32	65.0	N.E.	6.0	
November	142.3		80.3	66.1	14.2	73.2	1.41	67.1	N.E.	10.0	
December	140.0		80.1	63.3	16.8	71.7	1.74	68.0	N.E.	7.3	

BAHAMAS,
1900.

RETURN of DISEASES and DEATHS in 1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza	4	—	These figures do not include those admitted as Pauper Patients.
Malarial Fever	5	—	
Septicæmia	1	—	
Tubercle... ..	26	17	
Leprosy—			
(a.) Tubercular	8	—	
(b.) Anæsthetic	9	1	
Syphilis—			
(a.) Primary	25	—	
(d.) Late	9	—	
Alcoholism	2	—	
Rheumatism	24	—	
Rheumatic Fever	4	—	
New Growth, non-malignant ...	5	—	
„ malignant	7	1	
Anæmia	15	—	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Diseases of the Nerves—			
Neuritis	1	—	
Meningitis	1	1	
Myelitis	6	2	
Carried forward ...	152	22	

Return of Diseases and Deaths—cont.

BAHAMAS,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	152	22	These figures do not include those admitted as Pauper Patients.
LOCAL DISEASES—cont.			
Diseases of the Nervous System—cont.			
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	8	1	
Epilepsy	3	1	
Hysteria	2	—	
Sub-section 3.			
Mental Diseases—			
Idiocy	7	—	
Mania	25	—	
Melancholia	6	—	
Dementia	9	—	
Delusional Insanity	2	—	
Diseases of the Eye	10	—	
" " Ear	1	—	
" " Circulatory System.	23	10	
" " Respiratory System.	2	4*	
" " Digestive System.	30	17	
" " Lymphatic System.	12	—	
" " Urinary System	31	21	
Carried forward ...	323	76	

* 1 Death from disease of Respiratory System in a Pauper Patient (admitted as).

* 1 Death from disease of Respiratory System in an Insane Patient (admitted as)

BAHAMAS,
1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	323	76	These figures do not include those admitted as Pauper Patients.
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Male Organs ...	4	—	
" " Female Organs	14	—	
" " Organs of Locomotion.	25	2	
" " Cellular Tissue	7	—	
" " Skin ...	1	—	
Injuries, Local ...	33	1	Simple fractures ... 9 Compound fractures 1 Compound fractures and dislocation ... 1 Scald ... 1 Foreign bodies ... 3 Gunshot wounds ... 2 Other injuries ... 16
Surgical Operations ...	26	—	Amputations ... 5 Removal of foreign bodies ... 12 Removal of new growth ... 8 Skin grafting ... 1 Also minor operations.
Malformations ...	1	—	Talipes Equino-Varus.
Poisons ...	4	2	2 Alcohol (1 died). 1 Carbolic acid (recovered). 1 Laudanum (died).
Total ...	438	81	

No. 3.

BASUTO-
LAND,
1900.

BASUTOLAND.

1900.

BASUTOLAND MEDICAL REPORT FOR THE YEAR
ENDED 31ST DECEMBER, 1900.

The following table shows the estimated population for the year, with a comparison with the previous year:—

—				1899.	1900.
Native	...	...	...	269,300	274,240
European	...	...	...	700	1,400

The birth-rate has been estimated at from 40 to 42 per thousand, and the death-rate at about 21 per thousand.

The death-rate among young children and infants was higher than in 1899. A very widespread epidemic of measles and whooping cough was responsible for this.

As stated in my last report, there being no system of registration of births and deaths only a rough guess can be made at their number. The large increase of the European population is accounted for by the number of refugees from the Orange River Colony who have come over to Basutoland.

I am unable to trace any seasonal influence on epidemic diseases which have occurred. For instance, measles was prevalent throughout the country during the first nine months of the year, but the epidemic was most severe at Moyeni during the last quarter of the year; at Mοhales Hoek during August, September, and October; and at Maseru, Mafeteng, and Leribe from March to July.

BASUTO-
LAND,
1900.

Small-pox was prevalent throughout the year in the Teyateyaneng district, and in the Leribe district from March to the end of the year. There were also smaller epidemics in two of the southern districts late in the year.

There were mild epidemics of influenza during the winter months.

MEASLES.

The disease itself was mostly of a mild type. The high death-rate was mainly due to consecutive catarrhal pneumonia in children, who receive but little care and attention.

SMALL-POX.

As in other epidemics which have occurred in recent years, was of a mild type. The low death-rate favours the spread of the disease, by making the inhabitants less ready to observe the quarantine regulations. The severity of the epidemic and its long duration in the Teyateyaneng district is traceable to the fact that until last year considerable difficulty was experienced in inducing the inhabitants to submit to vaccination. Prior to the last epidemic they were almost entirely unprotected. During the last twelve months, however, the entire population has been vaccinated. In other districts where vaccination has been adopted for several years small-pox has been almost unknown during the last year.

INFLUENZA.

The only feature in connection with this disease which requires notice is the frequency with which cases during convalescence are subject to obstinate hiccough.

TUBERCLE.

Pulmonary tuberculosis appears to be increasing. It is specially prevalent in the Quthing district, where the climate is very bleak and cold in the winter months. It is increasingly observed in young men who have been at the different training colleges in Cape Colony.

SYPHILIS.

The close analogy between specific fevers and syphilis is well illustrated in the course and manifestations of the diseases as seen in Basutoland. The most interesting feature is the absence of the induration at the site of inoculation, and the consequent difficulty of demonstrating when or where the disease is contracted. The hard chancre is very rarely seen in natives,

yet let a single case of syphilis be introduced into a previously clean village, in a few months a large percentage of the inhabitants, especially children, will be found with secondary eruptions. Question the parents of such patients, and the most careful enquiry will fail to elicit a history of anything approaching a "primary sore." The first thing noticed was either sore throat, or mucous patches in the mouth, or a characteristic papular eruption on the trunk and extremities. As no stigma attaches to the acquisition of the disease there could be no object in concealing a history of the early symptoms. Very occasionally (two out of 112 cases during the last year) I have seen hard chancres in adult males, and these have invariably been accompanied by phagadœnic ulceration. It is noteworthy that in Europeans who contract the disease from natives, the classical features are always observed. As illustrating the rapidity with which the disease spreads, I will mention a case which was brought to my notice in 1892:—A village containing about 50 inhabitants was quite clean. A family, one member of which was suffering from a secondary eruption, joined the community, and within two months there were over 20 cases of syphilis, chiefly among children. As a result of enquiries made among the natives themselves it seems probable that the common use of eating and drinking utensils is the source of infection.

The next important feature is the extreme mildness of the secondary symptoms and the rapidity with which they disappear without treatment.

The natives themselves recognize a premonitory stage of the disease, characterized by malaise, slight fever, and sore throat. In some cases there are practically no secondary symptoms, and it is no uncommon thing to be told by natives with tertiary symptoms that many years ago they had syphilis "internally." The external manifestation had been so slight as to escape notice. The most common secondary manifestation is a discrete papular eruption on the trunk and extremities. In moist situations, *i.e.*, the Axilla and groin, the papules spread, and coalesce, forming concentric raised patches covered with macerated epithelium.

Rupia is not uncommon, and occasionally one sees a case with a universal pustular eruption which closely simulates smallpox. Marked pigmentation of the skin remains for a considerable time after the secondary eruptions subside.

Iritis is rare.

Mucous patches in the mouth and condylomata at the arms and vulva are common.

I have never observed a case in which there has been any loss of hair.

The tertiary symptoms present no special feature, but visceral disease is **extremely rare**.

BASUTO-
LAND,
1900.

SANITARY AFFAIRS.

The sanitary condition remains good. Owing to the deficient rainfall the water supply throughout the territory suffered, but I am unable to trace any resulting ill effect on the public health.

VACCINATION STATISTICS.

28,533 vaccinations were performed during the year. The greater number were performed by trained native vaccinators sent out in the different districts. Nearly all the cases were done with calf lymph. The people are extremely averse from arm to arm vaccination, and it is not encouraged, except at the dispensaries, owing to the danger of infection from syphilis.

The following table shows the number of cases in each district:—

Leribe (includes Butha Buthe) ...	2,360
Maseru (includes Teyateyaneng) ...	15,944
Mafeteng	819
Mohales Hoek	4,534
Quthing	4,876
	<hr/>
	28,533
	<hr/>

METEOROLOGICAL.

The year under review has been one of the driest on record, and, coming after a series of comparatively dry years, the want of rain has been very trying, although I am bound to say that it does not appear to have adversely affected the health of the population.

The rainfall was very unevenly distributed throughout the country, ranging from 21·76 inches recorded at Maseru to 36·08 at Butha Buthe.

I append charts showing the mean temperature and rainfall, also a comparison with the average of previous years.



CHART SHOWING MEAN TEMP. DURING THE YEAR 1900.

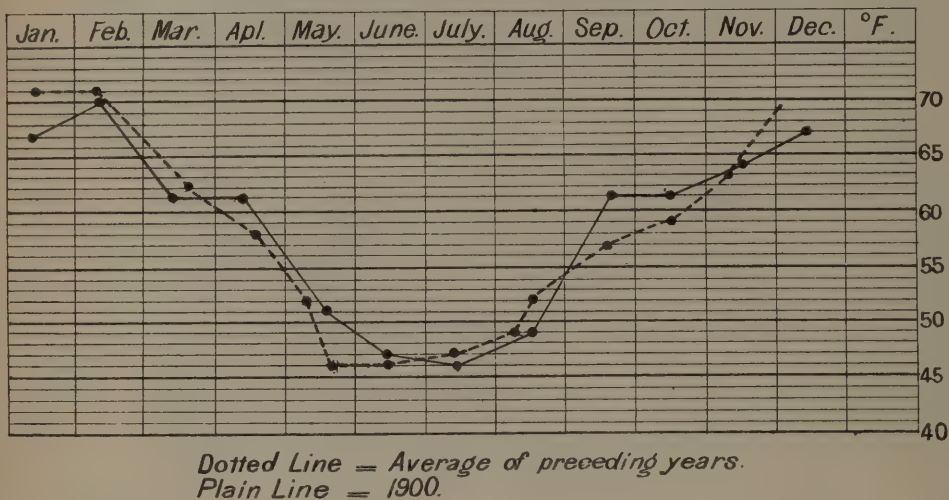
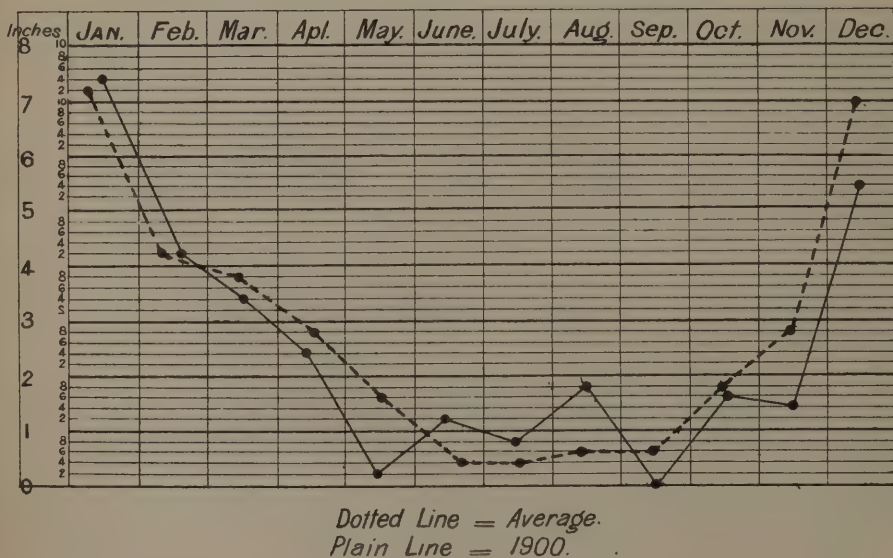


CHART SHOWING RAINFALL IN 1900.



The following returns are appended to this report:—

(1.) Statistics of Population.

(2.) Meteorological Return.

(3.) Nosological Returns from the following stations:—

Leribe.

Maseru.

Mafeteng.

Mohales Hoek.

Quthing.

BASUTO-
LAND,
1900.

(3.) Deals mainly with out-patients treated at the dispensaries. As stated in my last report, the number of beds is very limited. 248 in-patients were treated. During the winter months the hospitals at Mafeteng and Maseru were used as temporary base hospitals by the military authorities.

EDW. C. LONG,

Principal Medical Officer.

Maseru,

18th February, 1901.

RETURN OF THE STATISTICS OF POPULATION FOR THE YEAR 1900.

	Europeans and Whites.	Africans.	East Indians.	Chinese and Malays.	Mixed and Coloured.
No. of inhabitants in 1899 ...	700	269,300			
„ Births during the year 19					
„ Deaths „ „ 19					
„ Immigrants „ 1900	700				
„ Emigrants „ 19					
„ of inhabitants in 1900 ...	1,400	274,240			
Increase or	700	4,940			
Decrease					

METEOROLOGICAL RETURN FOR THE YEAR 1900.

	Temperature.						Rainfall.		Winds.		Remarks.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January	89	45	44	67	7.5	94	N.E.	2	The direction of the wind during the dry weather which prevailed during a great part of the year was generally N.E. till 11 a.m., veering round to W. by noon and remaining W. till early the following morning.
February	93	44	49	68	4.1	43	N.E.	2	
March	84	44	40	63	3.4	72	W.	2	
April	87	37	40	61	2.5	59	W.	1	
May	79	26	53	52	.1	48	W.	0	
June	73	24	49	47	1.1	53	W.	0	
July	72	27	45	46	.8	49	W.	2	
August	75	21	54	49	1.8	46	W.	2	
September	76	33	43	60	—	43	W.	3	
October	90	30	60	60	1.6	41	W.	4	
November	90	38	52	64	1.5	51	W.	4	
December	91	45	46	67	5.5	56	N.E.	2	
							29.9				

RETURN of DISEASES and DEATHS in 1900 at LERIBE
HOSPITAL and DISPENSARY.

BASUTO.
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Smallpox	See General Report.		
Measles	18	—	
Influenza	34	—	
Diphtheria	4	—	
Febricula	10	—	
Enteric Fever	8	1	
Dysentery	34	—	
Whooping Cough	218	—	
Scarlatina	3	—	
Mumps	18	—	
Erysipelas	4	—	
Septicæmia, "Puerperal"	2	—	
Tubercle... ..	6	—	
Leprosy—			
Tubercular	3	—	
Anæsthetic	1	—	
Syphilis—			
Tertiary	183	—	
Primary	2	—	
Secondary	88	—	
Inherited	28	—	
Carried forward	664	1	

* This includes all cases treated at the Dispensary as well as at the Hospital.

BASUTO-
LAND,
1900.

Leribe Hospital and Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	664	1	
GENERAL DISEASES— <i>cont.</i>			
Gonorrhœa	75	—	
Scurvy	3	—	
Rickets	2	—	
Rheumatism	121	—	
Rheumatic Fever	2	—	
Gout	8	—	
Lumbago	25	—	
New Growths—			
Non-malignant	25	—	
Malignant	4	—	
Anæmia	4	—	
Debility	5	—	
Plethora	2	—	
Ainhum	2	—	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Neuritis	1	—	
Meningitis	1	—	
Myelitis	1	—	
Concussion of Brain	3	—	
Carried forward ...	948	1	

* This includes all cases treated at the Dispensary as well as at the Hospital.

*Leribe Hospital and Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	948	1	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Nervous System— <i>cont.</i>			
Sub-section 2.			
Apoplexy	1	—	
Paralysis... ..	3	—	
Epilepsy	16	—	
Chorea	2	—	
Neuralgia	15	—	
Sciatica	3	—	
Migraine... ..	3	—	
Hysteria... ..	6	—	
Vertigo	2	—	
Infantile Convulsions	2	—	
Sub-section 3.			
Melancholia	1	—	
Dementia	2	—	
Diseases of the Eye—			
Ophthalmia	62	—	
Conjunctivitis	36	—	
Iritis	5	—	
Staphyloma	5	—	
Carried forward ...	1,112	1	

* This includes all cases treated at the Dispensary as well as at the Hospital.

BASUTO-
LAND,
1900.

Leribe Hospital and Dispensary—cont.

Diseases	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	1,112	1	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Eye— <i>cont.</i>			
Blepharitis	2	—	
Interstitial Keratitis ...	5	—	
Ulcerative „ ...	6	—	
Corneal Ulcers	3	—	
Glaucoma	3	—	
Foreign bodies in Eye ...	5	—	
Diseases of Ear—			
Deafness	2	—	
Earache	10	—	
Otorrhoea	25	—	
Foreign bodies in Ear ...	6	—	
Diseases of Nose—			
Nasal Catarrh	8	—	
Boena	3	—	
Epistaxis	1	—	
Polypus	1	—	
Foreign bodies in Nose ...	2	—	
Diseases of the Circulatory System—			
Valvular disease of Heart ...	5	1	
Functional disorders of Heart	10	—	
Carried forward ...	1,209	2	

* This includes all cases treated at the Dispensary as well as at the Hospital.

*Leribe Hospital and Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	1,209	2	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Circulatory System— <i>cont.</i>			
Varicose Veins	2	—	
Phlebitis	1	—	
Diseases of the Respiratory System—			
Pharyngeal Catarrh	34	—	
Laryngeal „	3	—	
Laryngitis and Croup ...	2	—	
Laryngeal Spasm	1	—	
Bronchial Catarrh	41	—	
Bronchitis	94	—	
Pleurisy	6	—	
Pleurodynia	14	—	
Pneumonia	10	1	
Phthisis Pulmonatis... ..	10	—	
Emphysema	1	1	
Bronchorrhoea Sera	1	—	
Diseases of Mouth—			
Herpes of Lips	6	—	
Stomatitis	41	—	
Glossitis	4	—	
Carried forward ...	1,480	4	

* This includes all cases treated at the Dispensary as well as at the Hospital.

BASUTO-
LAND,
1900.

Leribe Hospital and Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	* Cases.	Deaths.	
Brought forward ...	1,480	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of Mouth— <i>cont.</i>			
Ranula	2	—	
Follicular Tonsilitis ...	7	—	
Quinsy	16	—	
Enlarged Tonsils	2	—	
Diseases of Digestive System—			
Dyspepsia	494	—	
Gastritis	1	—	
Gastric Catarrh	52	—	
Biliousness and Headache ...	15	—	
Dilatation of Stomach ...	2	—	
Hepatitis, Subacute	2	—	
Jaundice	2	—	
Hepatic Colic... ..	2	—	
Intestinal Colic	4	—	
Constipation	48	—	
Diarrhœa	106	—	
Colitis	1	—	
Hæmorrhoids... ..	8	—	
Fistula in Ano	1	—	
Prolapsus ani... ..	2	—	
Carried forward ...	2,247	4	

* This includes all cases treated at the Dispensary as well as at the Hospital.

*Leribe Hospital and Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	2,247	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Lymphatic System—			
Suppurative Parotitis ...	5	—	
Goitre... ..	1	—	
Enlarged Cervical Glands ...	14	—	
Suppurating Glands... ..	12	—	
Hodgkins Disease	3	—	
Diseases of the Urinary System—			
Nephritis, Acute	4	—	
Renal Dropsy	1	—	
Vesical Catarrh	3	—	
Renal Colic	1	—	
Diseases of the Generative System—			
Male Organs—			
Orchitis	10	—	
Epididymitis	2	—	
Phimosis	1	—	
Paraphimosis	2	—	
Hydrocele	3	—	
Impotence	3	—	
Phagedæna of Penis ...	2	—	
Carried forward ...	2,314	4	

* This includes all cases treated at the Dispensary as well as at the Hospital.

PLASUTO-
LAND,
1900.

Leribe Hospital and Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	2,314	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Generative System— <i>cont.</i>			
Female Organs—			
Dysmenorrhœa	16	—	
Amenorrhœa	3	—	
Menorrhagia	5	—	
Endometritis	5	—	
Perimetritis and Salpingitis	2	—	
Ovarian Neuralgia... ..	2	—	
Torn Perinæum	2	—	
Abortion and Miscarriage...	3	—	
Menopanse... ..	2	—	
Mustitis	7	—	
Retained Placenta... ..	1	—	
Diseases of Organs of Locomotion—			
Synovitis	12	—	
Bursitis	6	—	
Acute Periostitis	1	—	
Necrosis of Bone	7	—	
Spinal Caries	1	—	
Carried forward ...	2,389	4	

* This includes all cases treated at the Dispensary as well as at the Hospital.

*Leribe Hospital and Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	2,389	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of Cellular Tissue—			
Abscess	36	—	
Cellulitis	3	—	
Onychia	2	—	
Whitlow	3	—	
Ulcers	18	—	
Diseases of the Skin—			
Eczema	187	—	
Prurigo	14	—	
Impetigo	12	—	
Ringworm	6	—	
Acne	3	—	
Favus	3	—	
Lyehosis	1	—	
Psoriasis	2	—	
Urticaria	6	—	
Petrephigus	2	—	
Lichen	1	—	
Other diseases of the Class ...	8	—	
Carried forward ...	2,696	4	

* This includes all cases treated at the Dispensary as well as at the Hospital.

BASUTO-
LAND,
1900.

Leribe Hospital and Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	2,696	4	
INJURIES			
Fractures	13	—	
Dislocations	5	—	
Sprains	8	—	
Bruises and Abrasions ...	15	—	
Lightning Stroke	1	—	
Wounds—			
Slight	61	—	
Scalp	2	—	
Abdomen	1	—	
Torn and severe, of Leg ...	1	—	
Scrotum	1	—	
Gunshot of Face	1	—	
„ „ Thigh	1	1	
„ „ Leg and Foot...	1	—	
Compound fractures of Cranium.	5	1	
SURGICAL OPERATIONS.			
Trephining	4	—	
Amputations	3	—	
Excising Tumours and Cysts	20	—	
Removing Necrosed Bone ...	4	—	
Carried forward ...	2,843	6	

* This includes all cases treated at the Dispensary as well as at the Hospital.

*Leribe Hospital and Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	*Cases.	Deaths.	
Brought forward ...	2,843	6	
SURGICAL OPERATIONS— <i>cont.</i>			
Scraping Sinuses	3	—	
Scraping Diseased Glands ...	2	—	
Opening Abscesses	30	—	
Stitching Wounds	18	—	
Tying Arteries	1	—	
Dilating and Scraping Uterus	8	—	
Teeth Extraction	192	—	
MALFORMATIONS.			
Clubfoot	1	—	
POISONS.			
Snakebite	2	—	
PARASITES.			
Tænia Solium	24	—	
Ascaris Lunebricoides ...	2	—	
Oxyuris Vermiculuris ...	2	—	
Total	3,128	6	

* This includes all cases treated at the Dispensary as well as at the Hospital.

BASUTO-
LAND,
1900

RETURN of DISEASES and DEATHS in 1900 at MASERU
DISPENSARY.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Small-pox	400	—	Approximate estimate.
Chicken-pox	4	—	
Measles	137	—	
Influenza	55	—	
Diphtheria	1	—	
Enteric Fever	15	2	
Febricula	33	—	
Dysentery	9	—	
Puerperal Fever	5	—	
Tubercle—			
Pulmonary Phthisis... ..	7	1	
Tuber. Glands	25	—	
„ Arthritis	2	—	
„ Osteitis	6	—	
„ Peritonitis	1	—	
Leprosy—			
Anæsthetic	2	—	
Syphilis—			
Primary	2	—	
Secondary	112	—	
Tertiary	266	—	
Congenital	70	—	
Carried forward ...	1,152	3	

Maseru Dispensary—cont.

BASUTO-

LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,152	3	
GENERAL DISEASES— <i>cont.</i>			
Gonorrhæa	117	—	
Scurvy	13	1	
Rheumatism	105	—	
Rheumatic Fever	10	—	
Gonorrhæal Rheumatism ...	8	—	
Gout	2	—	
Anæmia	2	—	
Diabetes Mellitus	3	—	
Debility	32	—	
New Growths :			
Malignant—			
Carcinoma	2	—	
Non Malignant—			
Ganglion	4	—	
Fibromata	2	—	
Bursal Cysts	7	—	
Myxomata	1	—	
Lipomata	6	—	
Cystic Hygroma	2	—	
Papillomata	9	—	
Seb. Cysts	5	—	
Dermoid Cysts	3	—	
Carried forward ...	1,485	4	

BASUTO-
LAND,
1900.

Maseru Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,485	4	
GENERAL DISEASES—cont.			
New Growths, non-malignant— cont.			
Keloid	7	—	
Adenomata	2	—	
Ranula	4	—	
LOCAL DISEASES.			
Disease of Nerves—			
Neuritis	1	—	
Myelitis (Inf. Paral.) ...	1	—	
Functional Nervous Diseases—			
Chorea	1	—	
Epilepsy	15	—	
Neuralgia	43	—	
Apoplexy	1	—	
Hysteria	7	—	
Mental Diseases—			
Idiocy... ..	1	—	
Deaf Mutism... ..	1	—	
Diseases of the Eye—			
Muco-Purulent Conjunctivitis.	110	—	
Keratitis	15	—	
Phlyctenular Conjunctivitis	4	—	
Carried forward ...	1,608	4	

*Maseru Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	1,698	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Eye— <i>cont.</i>			
Blepharitis	2	—	
Echopeon	1	—	
Foreign Body in Cornea ...	5	—	
Staphyloma of Cornea ...	3	—	
Panophthalmitis	2	—	
Iritis	4	—	
Cataract	4	—	
Gleoma of Retina	2	—	
Glaucoma	4	—	
Tobacco Amblyopia	2	—	
Optic Nerve Atrophy ...	2	—	
Error of Refraction... ..	1	—	
Cong. Cyst of Conjunctiva (Dermoid).	1	—	
Diseases of the Ear—			
Middle Ear Catarrh	82	—	
Cerumen	6	—	
Eustachian Deafness ...	2	—	
Diseases of the Nose—			
Polypi... ..	1	—	
Atrophic Rhinitis	13	—	
Carried forward ...	1,835	4	

BASUTO-
LAND,
1900

Maseru Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,835	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Circulatory System—			
Valvular Disease of Heart ...	9	—	
Functional " " ...	5	—	
Pericarditis 	1	—	
Aortic Aneurism 	1	—	
Varicose Veins 	1	—	
Thrombosis of Femoral Vein	1	—	
Diseases of the Respiratory System—			
Bronchial Catarrh and Simple Catarrh.	405	—	
Bronchitis 	86	—	
Pertussis 	13	—	
Pharyngitis 	20	—	
Laryngitis 	4	—	
Broncho Pneumonia ...	10	—	
Pneumonia 	4	—	
Pleural Effusion 	1	—	
Mediastinal Tumour ...	1	—	
Diseases of the Digestive System—			
Stomatitis 	61	—	
Cancrum Oris 	1	—	
Glossitis 	1	—	
Carried forward ...	2,460	4	

*Maseru Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,460	4	
<i>LOCAL DISEASES—cont.</i>			
<i>Diseases of the Digestive System—cont.</i>			
Gastric Catarrh	880	—	
Constipation			
B'liousness			
Dyspepsia			
Diarrhoea	450	—	
Anal Fissure	1	—	
Catarrhal Jaundice	1	—	
Carcinoma Liver	1	—	
Cirrhosis Liver	1	—	
Hemorrhoid	1	—	
<i>Diseases of the Lymphatic System—</i>			
Tonsillitis	54	—	
Lymphangitis	2	—	
Lymphangiectasis	3	—	
Inflammation of the Mammæ	8	—	
Paroliditis	1	—	
<i>Diseases of the Urinary System—</i>			
Bright's Disease	3	—	
Renal Calculus	1	—	
Cystitis	3	—	
Carried forward ...	3,870	4	

BASUTO-
LAND,
1900

Maseru Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3,870	4	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Generative System—			
Male Organs—			
Stricture	9	—	
Phimoses	6	—	
Orchitis	6	—	
Epididymitis	4	—	
Impotence	2	—	
Extravasion of Urine ...	2	—	
Varicocele	1	—	
Female Organs—			
Diseases of Pregnancy ...	31	—	
Pelvic Peritonitis and Cel- lulitis.	31	—	
Subinvolution	12	—	
Amenorrhœa	2	—	
Dysmenorrhœa	8	—	
Sterility	8	—	
Vulvitis	1	—	
Vesico Vaginal Fistula ...	1	—	
Congenital Septum of Vagina.	1	—	
Hæmatoma of Broad Liga- ment.	2	—	
Extra Uterine Gestation...	1	—	
Uterine Myoma	2	—	
Lacerated Perineum ...	3	—	
Carried forward ...	4,003	4	

*Maseru Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	4,003	4	
LOCAL DISEASES— <i>cont.</i>			
Organs of Locomotion—			
Ainhum	1	—	
Diseases of the Cellular Tissue—			
Abscess	46	—	
Ulcers	31	—	
Synovitis	14	—	
Teno Synovitis	4	—	
Loose cartilage in knee joint	1	—	
Suppurative synovitis ...	2	—	
Diseases of the skin—			
Impetigo	266	—	
Eczema	56	—	
Scabies	27	—	
Urticaria	14	—	
Herpes	11	—	
Ringworm	6	—	
Pityriasis Versicolor ...	6	—	
Boils	4	—	
Lencoma	2	—	
Pemphigus	2	—	
Psoriasis	1	—	
Erythema Nodosum ...	1	—	
Acne	1	—	
Carried forward ...	4,499	4	

BAFUTO-
LAND,
1900.

Maseru Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	4,499	4	
INJURIES.			
General—			
Lightning stroke	1	—	
Local—			
Lacerated wounds	41	—	
Incised „	29	—	
Contusions	11	—	
Burns	28	—	
Fractures	3	—	
Dislocations	1	—	
Sprains	9	—	
Insect bites	11	—	
MALFORMATIONS.			
Congenital Hernia	2	—	
PARASITES.			
Ascarides	7	—	
Tapeworm	40	—	
Hydatids	2	—	
Total	4,684	4	
SURGICAL OPERATIONS.			
For—			
Resection of tumours ...	33	—	
Paraphimosis	4	—	
Carried forward ...	37	—	

*Maseru Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	37	—	
SURGICAL OPERATIONS— <i>cont.</i>			
For—			
Carious bone	2	—	
Ranula	4	—	
Cataract	4	—	
Iridectomy	3	—	
Ciliary neurotomy	1	—	
Suppurating joints	2	—	
Supra pubic cystotomy	1	—	
Perinæal section	2	—	
Tubercular glands	8	—	
Congenital septum of vagina	1	—	
Exploration of frontal sinus	1	—	
Curetting Uterus	5	—	
Opening abscesses, lacerated wounds, and other minor operations.	65	—	
Teeth extractions	158	—	
Total	294	—	

BASUTO-
LAND,
1900.

RETURN OF DISEASES AND DEATHS IN 1900 AT MAFETENG
DISPENSARY.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
GENERAL DISEASES.			
Small-pox	1	1	As there are out-patients attending Government Dispensary it is impossible to give reliable statistics of results, as the few cases known to the full as regards their history would only give misleading percentages if quoted.
Scarlet Fever	5	—	
Measles	58	—	
Whooping Cough	118	—	
Influenza	46	—	
Diphtheria	8	—	
Enteric Fever	15	—	
Dysentery	39	—	
Malarial Fever—			
Intermittent, Irregular ...	5	—	
Erysipelas	1	—	1 Puerperal, 1 Compound Fracture.
Parotitis	13	—	
Septicæmia	2	—	
Tetanus (?)	1	—	
T. Phthisis	5	—	
Tubercle, other	9	—	
Leprosy—			
Tubercular	4	—	
Anæsthetic	2	—	
Ainhum	5	—	
Carried forward ...	337	1	

*Mafeteng Dispensary—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	337	1	
GENERAL DISEASES— <i>cont.</i>			
Syphilis, Primary	18	—	
„ Sec. and Tertiary	221	—	
„ Congenital	20	—	
Gonorrhœa	43	—	
Scurvy	2	—	
Pelioses	1	—	
Rheumatism	58	—	
Rheumatic Fever	6	—	
Gout... ..	1	—	
New Growth—			
Non-Malignant, mostly Lipo- mata and Cystic.	22	—	
Malignant—			
Carcinoma	6	—	
Sarcoma	4	—	
Anæmia	11	—	
Debility	20	—	
Peripheral Neuritis	10	—	
Meningitis	3	—	
Apoplexy	5	—	
Paralysis	7	—	5 Hemiplegia, 2 Bell's.
Chorea	4	—	
Epilepsy	9	—	
Carried forward ...	808	1	

BASEUTO-
LAND,
1900.

Mafeteng Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	808	1	
GENERAL DISEASES— <i>cont.</i>			
Neuralgia	59	—	Of which 10 Sciatic Nerve.
Hysteria	22	—	
Migraine	21	—	
Vertigo and Meniere's Disease	7	—	
Delusional Insanity	2	—	
Pseudo-hypertrophic Paralysis	1	—	
Cataract	5	—	
Glaucoma	5	—	
Conjunctivitis	85	—	
Otitis media purulenta... ..	44	—	
Earache	10	—	
Nasal Catarrh and Ozaena ...	27	—	
Epistaxis	10	—	
Valvular Incompetency	9	—	
Cardiac Dropsy... ..	8	—	
Pericarditis	1	—	
Palpitation	18	—	
Aneurism	3	—	
Thrombosis	1	—	
Bronchitis and Bronchial Catarrh.	200	—	
Capillary Bronchitis	26	—	
Acute Croupous Pneumonia ...	19	—	
Carried forward ...	1,391	1	

*Mafeteng Dispensary—cont.*BASUTO
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,391	1	
GENERAL DISEASES— <i>cont.</i>			
Catarrhal Pneumonia	20	—	
Pleurisy... ..	14	—	
Empyema	1	—	
Emphysema	8	—	
Br. Asthma	14	—	
Laryngitis	19	—	
Laryngeal Stenosis	1	—	
Tonsillitis	20	—	
Pharyngitis	39	—	
Hæmoptysis	3	—	
Stomatitis	40	—	
Ranula	7	—	
Dyspepsia and Chronic Gastric Catarrh.	280	—	
Acute and Sub-acute Gastritis	25	—	
Gastric Ulcer	2	—	
Diarrhœa	68	—	
Colic	25	—	
Needle swallowed	1	—	
Jaundice... ..	7	—	
Umbilical Hernia	1	—	
Hæmorrhoids	8	—	
Fistula	3	—	
Carried forward ...	1,997	1	

BASUTO-
LAND,
1900.

Mafeteng Dispensary—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,997	1	
GENERAL DISEASES— <i>cont.</i>			
Ileus	1	—	
Lymphadenitis	16	—	
Bright's Disease	5	—	
Renal Colic	3	—	
Cystitis	9	—	
Calculus	3	—	
Stricture	10	—	
Orchitis, &c.	10	—	
Diseases of Female Generative Organs.	49	—	
Necrosis of Leg Bones... ..	7	—	
Arthritis (non-rheumatic) ...	19	—	
Morbus Coxæ	5	—	
Lightning Stroke	3	—	
Burns	17	—	
Dislocations	6	—	
Fractures	2	—	
Gangrene	3	—	
Abscess	49	—	
Malformations	2	—	
Tæniæ S.	22	—	
Ascaris	6	—	
Threadworms	4	—	
Carried forward ...	2,248	1	

Mafeteng Dispensary—cont.

BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,248	1	
GENERAL DISEASES—cont.			
Hydatids... ..	2	—	
Bilharzia... ..	1	—	
Goitre	1	—	
Chlorosis	2	—	
Dental Caries	183	—	
Scabies	93	—	
Ringworm	7	—	
Favus	5	—	
Eczema	65	—	
Psoriasis... ..	12	—	
Prurigo	12	—	
Herpes Zoster	9	—	
Vililigo	5	—	
Ecthyma	10	—	
Urticaria... ..	4	—	
Acne	8	—	
Pemphigus	1	—	
Ichthyosis	1	—	
Other Skin Diseases	10	—	
Total	2,679	1	

BASUTO-
LAND,
1900.

Mafeteng Hospital.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Brain Abscess	1	—	Wounded by a pick, left parietal. Right arm paralysed.
Perforation of Rectum ...	1	—	Swallowed a large vertebral bone of a fish, which passed all alimentary tract until rectum, where it pierced gut. Extracted from perineum.
Penetrating Wound of Thorax	1	—	
Axe Wound of Head and Face	1	—	
Bullet Wound	1	—	Mauser wound through tibia and interosseous membrane. Healed without suppuration.
Foreign Bodies	3	—	One of these was a swallowed needle. No symptoms of any kind.
Arthritis of Knee	1	—	
Tumours, Non-malignant ...	6	—	
Sarcoma	1	—	
Carcinoma	1	—	
Hydatid	1	—	
Goitre	1	—	
Abscess	3	—	
Septicæmia, requiring Amputation of Arm.	1	—	
Ainhum	3	—	
Dislocation	1	—	
Fracture	1	—	
Pneumonia	3	—	
Empyema	1	1	
Tubercle... ..	2	—	
Total	34	1	

RETURN of DISEASES and DEATHS in 1900 at MOHALES BASUTO-
HOEK. LAND,
1900.

Out-Patients.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
GENERAL DISEASES.			
Small-pox	89	—	
Measles	80	—	
Varicella... ..	11	—	
Influenza	52	—	
Pertussis... ..	67	—	
Mumps	9	—	
Febricula	7	—	
Enteric Fever	6	—	
Dysentery	4	—	
Erysipelas	3	—	
Tubercle—			
Lungs	9	—	
Glands	11	—	
Joints	4	—	
Spine	2	—	
Intestines	3	—	
Peritoneum	2	—	
Leprosy—			
Tubercular	2	—	
Anæsthetic	5	—	
Carried forward ...	366	—	

BASUTO-
LAND,
1900.

Mohale's Hoek—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	366	—	
GENERAL DISEASES— <i>cont.</i>			
Syphilis—			
Primary	2	—	
Secondary	25	—	
Tertiary	141	—	
Congenital	111	—	
Gonorrhœa	60	—	
Rheumatism	60	—	
Muscular Rheumatism...	10	—	
Rheumatic Fever	2	—	
Gonorrhœal Rheumatism ...	6	—	
Gout	2	—	
Tumours—			
Non-malignant	21	—	
Malignant	7	—	
Anæmia	9	—	
Diabetes Mellitus	1	—	
Goitre	2	—	
Exophthalmic Goitre	1	—	
Debility	15	—	
Heat stroke	5	—	
Carried forward ...	846	—	

Mohales Hoek—cont.

BASUTO
LAND
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	846	—	
LOCAL DISEASES.			
Diseases of Nervous System—			
Sub-section 1.			
Neuritis	4	—	
Sub-section 2.			
Paralysis	2	—	
Epilepsy	10	—	
Neuralgia	14	—	
Hysteria	2	—	
Megrius	11	—	
Neurésthema	3	—	
Sub-section 3.			
Acute Mania	1	—	
Diseases of the Eye—			
Conjunctivitis	33	—	
Ulcer of Cornea	10	—	
Phlecsenular Ulcers... ..	3	—	
Lencoma	4	—	
Staphyloma Cornea	3	—	
Chr. Blepharitis	6	—	
Iritis	6	—	
Cataract	3	—	
Obstr. Nasal Duct	4	—	
Carried forward ...	965	—	

BASUTO-
LAND,
1900.

Mohale's Hoek—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	965	—	
LOCAL DISEASES—cont.			
Diseases of the Eye—cont.			
Keratitis	3	—	
Gonorrh. Ophthal.	2	—	
Dacryocystitis	3	—	
Panophthalmitis Chr....	2	—	
Trachoma	6	—	
Blenorrhora Lacrimalsac ...	3	—	
Other diseases	7	—	
Diseases of the Ear—			
Otitis Media Acute	4	—	
Otitis Media Chedrica ...	16	—	
Otitis Externa	8	—	
Tinnitus Aurium	5	—	
Foreign bodies	4	—	
Mastoid Abscess	4	—	
Diseases of the Nose—			
Chr. Rhinitis	3	—	
Acute Catarrh	4	—	
Polypus	2	—	
Diseases of the Mouth and Throat—			
Acute Tonsillitis	39	—	
Chr. Tonsillitis	9	—	
Carried forward ...	1,089	—	

*Mohales Hoek—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,089	—	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Mouth and Throat— <i>cont.</i>			
Pharyngitis	6	—	
Adenoids	3	—	
Ranula	8	—	
Stomatitis	20	—	
Tencoplakia	3	—	
Dental Caries	298	—	
Epulis	2	—	
Other diseases	3	—	
Diseases of the Circulatory System—			
Valvular	4	—	
Pericarditis	3	—	
Cardiac Debility	7	—	
Aneurysm	3	—	
Diseases of the Respiratory System—			
Bronchial Catarrh	177	—	
Pneumonia	8	—	
Pleurisy	11	—	
Asthma	11	—	
Laryngitis	5	—	
Empyema	3	—	
Carried forward ...	1,664	—	

Mohales Hoek—cont.

BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,664	—	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Digestive System—			
Dyspepsia, Chr.	151	—	
Dyspepsia, Acute	8	—	
Gastritis	14	—	
Gastralgia	6	—	
Intestinal Colic	14	—	
Constipation	30	—	
Epidemic Diarrhoea	56	—	
Diarrhoea	26	—	
Dysenteric Diarrhoea	12	—	
Hæmorrhoids	6	—	
Congestion of Liver... ..	10	—	
Carcinoma Liver	2	—	
Other Diseases	10	—	
Peritonitis	6	—	
Diseases of the Lymphatic System—			
Adenitis	14	—	
Lymphangitis	3	—	
Diseases of the Urinary System—			
Acute Nephritis	3	—	
Chronic Nephritis	5	—	
Carried forward ...	2,040	—	

*Mohales Hoek—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	2,040	—	
LOCAL DISEASES—cont.			
Diseases of the Urinary System—cont.			
Nocturnal Incontinence ...	3	—	
Hæmaturia	2	—	
Cystitis	2	—	
Prostatitis	2	—	
Diseases of the Generative System—			
Male Organs—			
Stricture of Urethra ...	13	—	
Urethritis	3	—	
Gleet	8	—	
Orchitis	5	—	
Impotence	6	—	
Female Organs—			
Dysmenorrhœa	18	—	
Menorrhagia	9	—	
Endometritis	7	—	
Metritis	2	—	
Subinsolution of uterus ...	3	—	
Parametritis	3	—	
Perimetritis	4	—	
Vesico Vaginal Fistula ...	2	—	
Carried forward ...	2,132	—	

BASUTO-
LAND,
1900.

Mohales Hoek—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,132	—	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Generative System— <i>cont.</i>			
Female Organs— <i>cont.</i>			
Salpingitis	2	—	
Amenorrhœa	11	—	
Menopanse	6	—	
Labours	5	—	
Pregnancy	6	—	
Miscarriage	3	—	
Ovarian Cysts	4	—	
Fibroids of Uterus ...	6	—	
Mastitis	6	—	
Diseases of the Organs of Locomotion—			
Ankylosis	2	—	
Periostitis	6	—	
Necrosis of Bone	6	—	
Arthritis and Synovitis ...	9	—	
Tiluosynovitis and Bursitis	6	—	
Ganglion	2	—	
Lumbago	9	—	
Sciatica	3	—	
Gangrene Foot	1	—	
Carried forward ...	2,225	—	

*Mohales Hoek—cont.*BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,225	—	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Cellular Tissue—			
Cellulitis	4	—	
Abscess	12	—	
Diseases of the Skin—			
Erythema Nodosems ...	3	—	
Eczema	77	—	
Impetigo Contagiosa ...	30	—	
Scabies	68	—	
Urticaria	12	—	
Furmicle	6	—	
Tinea	9	—	
Pruritus	5	—	
Pityrasis Versicolor ...	6	—	
Burns	8	—	
Herpes	4	—	
Ainhum	3	—	
Lichen	4	—	
Keloid	4	—	
Other Diseases	9	—	
Carried forward ...	2,489	—	

BASUTO-
LAND,
1900.

Mohales Hoek—cont.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	2,489	—	
INJURIES.			
Local—			
Wounds	26	—	
Sprains and Contusions ...	24	—	
Dislocations	2	—	
Fractures	1	—	
SURGICAL OPERATIONS.			
Major	1	—	
Minor	374	—	Including dental ex- tractions.
MALFORMATIONS... ..	3	—	
POISONS.			
Mercurial	2	—	
PARASITES.			
Tænia Solium	12	—	
Ascaris Lumbricoides... ..	2	—	
Oxyuris Vermicularis	5	—	
Total (Out Patients) ...	2,941	—	

*Mohales Hoek—cont.*BASUTO-
LAND,
1900.*In-Patients.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
MEDICAL.			
Addison's Disease	1	—	Discharged unimproved.
Pleural Effusion	1	—	Cured.
Mitral Incompetence	1	—	Died week after discharge.
Tubercular Peritonitis... ..	1	1	Refused operation.
Leprosy, Anæsthetic	1	—	Not improved.
SURGICAL.			
Fatty Tumour	8	—	All cured.
Fitroma Skin	1	—	Cured.
Ranula	1	—	Cured.
Keloid	2	—	Growths removed.
Tubercular Adenitis	3	—	Glands excised. Cured.
Tenosynovitis, Chr.	1	—	Cured. Operation.
Bursitis Chronica	2	—	Cured. Excised.
Chr. Periostitis (Abscess) ...	1	—	Cured.
Appendicitis	1	—	Cured. No operation.
Hæmorrhoids	1	—	Cured. Operation.
Epididymitis	1	—	Cured.
Hæmaturia	1	—	Cured. (?) cause.
Empyema	2	—	Refused operation. Discharged.
Aneurysm	1	—	Inoperable. Died few weeks after discharge.
Carried forward ...	31	1	

BASUTO-
LAND,
1900.

Mohales Hoek—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	31	1	
SURGICAL— <i>cont.</i>			
Gangrene, Acute	1	1	Foot amputated. Death.
Wounds	2	—	Cured.
Fracture	1	—	Cured.
Iritis	1	—	
Ulcer of Cornea	1	—	
Ovarian Cyst	1	—	Refused operation. Twisted pedicle. Death four days after leaving hospital.
Total (In-Patients) ...	38	2	

RETURNS of DISEASES and DEATHS in 1900 at
QUTHING.

BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Measles	14	—	
Influenza	27	—	
Febricula	8	—	
Enteric Fever	1	—	
Dysentery	2	—	
Tubercle... ..	29	—	Pulmonary tuber- culosis 20 Tuberculosis of glands 6 Tubercular ulcers 2 Tubercular peri- tonitis 1 Pulmonary tuberculosis caused 4 deaths. In the case of peri- tonitis, operation was refused.
Leprosy—			
(a.) Tubercular	1	—	Chaulmoogra oil was administered. In one case the patient de- clared he was much relieved. In the re- mainder it appeared to have no effect.
(b.) Anæsthetic	3	—	
Syphilis—			
(a.) Primary... ..	5	—	
(b.) Secondary	46	—	
(c.) Tertiary... ..	30	—	
(d.) Hereditary	17	—	
Gonorrhœa	30	—	
Carried forward ...	213	—	

BASUTO-
LAND,
1900.

Quthing—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	213	—	
GENERAL DISEASES-- <i>cont.</i>			
Rheumatism	63	—	
Acute Rheumatism	2	—	
Gout	1	—	
New Growths—			
Non-malignant	7	—	Fibroma 2 Lipoma 2 Enchondroma ... 3
Malignant	2	—	Melanotic sarcoma of eyelid ... 1 Sarcoma of bone ... 1
Anæmia	10	—	
Diabetes Mellitus	2	—	
Debility	8	—	
LOCAL DISEASES.			
Diseases of Nerves—			
Neuritis	8	—	
Meningitis	3	—	
Myelitis	2	—	
Hydrocephalus	1	—	
Congestion of Brain... ..	1	—	
Paralysis	2	—	
Chorea	1	—	
Epilepsy	14	—	
Carried forward ...	340	—	

Quthing—cont.

BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	340	—	
LOCAL DISEASES—cont.			
Diseases of Nerves—cont.			
Neuralgia	5	—	
Hysteria	16	—	
Idiocy	1	—	
Dementia	2	—	
Diseases of the Eye	46	—	Conjunctivitis ... 38 Corneal ulcer ... 2 Exophthalmos ... 3 Enophthalmos ... 1 Lachrymal duct stricture ... 1 Ectropion... ... 1
Diseases of the Ear	41	—	Otorrhœa 10 Otitis Media ... 12 Eczema of Gut and Meatus 13 Wax 6
Diseases of the Nose	17	—	Ulcers of Nares ... 5 Hypertrophic Rhinitis 5 Rhinorrhœa 1 Syphilitic Perios- titis of Surbinal ... 6
Diseases of Circulatory System	8	—	Aortic Regurgita- tion 2 Mitral Regurgita- tion 3 Aneurism 2 Varicose Veins ... 1
Carried forward ...	476	—	

BASUTO-
LAND,
1900.

Quthing—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	476	—	
LOCAL DISEASES—<i>cont.</i>			
Diseases of the Digestive System	290	—	Pharyngitis ... 43 Tonsillitis... ... 12 Dyspepsia... ... 81 Stomatitis... ... 17 Acute Gastritis ... 18 Subacute „ ... 26 Constipation ... 50 Diarrhoea ... 27 Melæna 2 Colic 3 Hepatic Cirrhosis... 3 Ascitis 1 Perityphitis ... 1 Hiccup 4 Fistula in Ano ... 2
Diseases of Respiratory System	217	—	Adenoids 1 Laryngitis ... 7 Acute Bronchitis... 16 Subacute Bron- chitis 177 Pneumonia ... 10 Pleurisy 4 Asthma 2
Diseases of Urinary System ...	6	—	Pynria 1 Stone in Kidney... 1 Hæmaturia ... 3 Paroxysmal Hæmo- globmeria ... 1
Diseases of the Generative System—			
Male Organs	41	—	Gonorrhœa ... 30 Impotence ... 2 Orchitis ... 4 Paraphimosis ... 1 Epidilymitis ... 1 Hydrocele ... 2 Tubercular Testis 1
Carried forward ...	1,030	—	

Quthing—cont.

BASUTO-
LAND,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,030	—	
LOCAL DISEASES—cont.			
Diseases of the Generative System—cont.			
Female Organs	55	—	Metritis 1 Amenorrhœa 3 Gonorrhœa 6 Dysmenorrhœa 20 Ovaritis 4 Menorrhagia 6 Leucorrhœa 11 Postpartem Sequelæ 4
Diseases of Organs of Loco ⁿ motion.	21	—	Arthritis 6 Synovitis 14 Abscess of hip-joint 1
Diseases of Cellular Tissue ...	5	—	
Diseases of the Skin	79	—	Eczema 6 Herpes 3 Scabies 49 Miliaria 3 Impetigo contagiosa 4 Acne 3 Urticaria 4 Lupus vulgaris 2 Psoriasis 4 Molluscium conta- giosium 1
INJURIES.			
General	52	—	Burns 7 Wounds, head 8 Fractured skull 1 Splinter in forearm 1 Dynamite explo- sion, loss of hand 1 Splinter under nail 2 Sickle cuts 4 Wounds on peri- neum 1
Carried forward ...	1,242	—	

BASUTO-
LAND,
1900.

Quthing—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,242	—	
INJURIES— <i>cont.</i>			
General— <i>cont.</i>			Stab of hand ... 2 Lightning stroke (1 death) ... 2 Bruise of chest ... 1 Bite of lip... ... 1 Severe kicks from horses 6 Foreign body in eye 2 Minor injuries ... 12 Foreign body in ear 1
Total	1,242	—	
SURGICAL OPERATIONS	16	—	For fistula... ... 1 For tubercular glands 2 For replacing pro- lapsed intestine 1 For fractured skull 1 Amputation at wrist 1 For caries of rib ... 1 Minor operations performed under cocaine 9 ————— Teeth extracted ... 60
MALFORMATIONS... ..	1	—	Undescended testis 1
PARASITES	16	—	Iænia 10 Ascarides 6
MISCELLANEOUS	6	—	Enlarged thyroid... 2 Inflamed mammae 2 Periosteal abscess of jaw 1 Atrophy 1
Total	39	—	

No. 4.

BERMUDA,
1900.

BERMUDA.

REPORT OF THE MEDICAL OFFICER OF HEALTH
FOR THE YEAR 1900.

The estimated civil population, taken from the Registrar General's Annual Report, which has just been published, was, at the end of 1899, 16,423.

The births numbered 597, and the deaths 394. The living birth-rate was 36.3 per 1,000, as compared with 30.2 per 1,000 in 1899, 32.8 per 1,000 in 1898, 31.7 per 1,000 in 1897, 31.4 per 1,000 in 1896, and 32.6 per 1,000 in 1895.

The death-rate was 21.3 per 1,000, as compared with 20.6 per 1,000 in 1899, 19.4 per 1,000 in 1898, 21 per 1,000 in 1897, 19.8 per 1,000 in 1896, and 21.7 per 1,000 in 1895.

The death-rate during the period under review, according to colour, was 19.2 per 1,000 amongst the resident white, and 25.5 per 1,000 amongst the coloured population.

The state of the public health has been eminently satisfactory during the year 1900, there having been no prevalence of any epidemic disease.

Scarlet fever was introduced twice during the winter by persons coming here from the United States, but on both occasions the cases were promptly isolated and the disease did not spread.

Enteric fever caused nine deaths, and 29 cases of this disease were notified. There was not only a diminution in the number of cases over former years, but the type of the disease was mild. No doubt a number of cases occurred which were not notified.

MOSQUITOS AND YELLOW FEVER.

In consequence of four of the Medical Officers of the Royal Army Medical Corps serving in Bermuda being required for active service in South Africa, I obtained His Excellency the Governor's permission to assist the Royal Army Medical Corps at Prospect during the whole year. The first three months

BERMUDA, of the year I noticed that a number of the men of the 1st West India Regiment came sick with ague and its effects. In the second quarter these cases gradually reduced in number, and by the end of the year they had approached the vanishing point. Ague or any form of remittent fever has never been known to arise here, and it is a common thing for persons who have contracted fever in other parts of the world, as these soldiers had done, to recover their health after a short residence here. There are brackish marshes in the immediate vicinity of Prospect Camp, and there are others in different parts of the island, but numerous reports have been written at various times to show how healthy and free from malaria these neighbourhoods are. I have had specimens of mosquitos captured near these marshes and other places examined at the British (Natural History) Museum. They were all pronounced to be of the genus *Culex*. The *Anopheles* mosquito, which has been recently proved to carry the germs of malaria, has not been found here, and, in my opinion, is not present. The mosquito *Culex* may be found here all the year round, and is most active during the period of the year that yellow fever prevailed in former years, viz., from June to December. Some striking proofs have been recently brought forward as to the transmissibility of yellow fever by the mosquito *Culex* at Havana, Cuba, by an American Commission, under Dr. Reed's superintendence. At a station in strict quarantine, and with every source of infection absolutely excluded, these scientists have succeeded in infecting a number of persons who permitted themselves to be bitten by purposely contaminated mosquitos of the genus *Culex*, such as we have here in Bermuda. The poison is not transferred from one individual to another in a mechanical way in the proboscis of the mosquito, but the parasite of yellow fever must undergo a definite cycle of development in the body of the mosquito before the latter is capable of conveying infection. This period would seem to be not less than twelve days, or longer. The period of incubation in thirteen cases of yellow fever experimentally produced has varied from forty-one hours to five days and seventeen hours. According to this theory, a house or neighbourhood may be said to be infected with yellow fever only when there are present contaminated mosquitos capable of conveying the parasite of this disease, or, in other words, have fed on yellow fever patients twelve or more days before.

On the grounds that recent experiments prove beyond reasonable doubt that mosquitos are active agents in the dissemination of yellow fever and malaria, a systematic attempt is being made to destroy the breeding places in and near Havana by sprinkling with petroleum, out of a watering pot, all pools of water once a week. It is obvious to anyone that this could not be done in a country like Bermuda, where every house has its tank for drinking water. To show what a hopeless work the extermination of mosquitos would be, I need only state

that the female *Culex* has been known to avail herself of even the smallest collections of stagnant rain water for breeding purposes, the water that collects in any old tins or discarded utensils of any kind being sufficient. BERMUDA,
1900.
—

It would, however, be a comparatively easy matter to protect all yellow fever patients and suspects from the bites of mosquitos.

Much further work is required before this mosquito theory of the spread of yellow fever can be said to be absolutely established, and for that reason I venture to give a few extracts from the reports on yellow fever epidemics which have occurred in Bermuda.

Before doing so, however, I think it well to quote from Dr. Patrick Manson's book on tropical diseases:—

Yellow fever is a "disease whose germs do not pass quickly "from the sick to the healthy, but have first, apparently, to "undergo extra-corporeally developmental changes that enable "them to attack and to live in the human body again."

The scientists working at the mosquito theory seek to prove that the extra-corporeal cycle of the germ is passed in the mosquito.

1864 EPIDEMIC.

The steamship "**Fannie**," a blockade runner, arrived at Bermuda on the 13th June, 1864, and brought news that yellow fever had just broken out at Nassau. A man named Alton, an Englishman, arrived at St. George's on this ship, and died with black vomit on the 30th June, his skin being intensely yellow. Alton died at Mrs. Walshe's house situated in rear of the gaol. The next case (being the second beyond a doubt to have occurred) was that of Geo. Williams, who was attacked on the 10th July 1864, 45 days after having left Nassau in the steamship "**City of Petersburg**"; he died with black vomit and a jaundiced skin on the 17th July. The long period which elapsed after his leaving Nassau seems to show that the fever was contracted in Bermuda. This man lodged at Jones's house to the west of the gaol, and about 200 yards south-west and below Mrs. Walshe's; Williams had no communication direct or indirect with Walshe's family or Alton. The local Board of Health caused Walshe's house to be vacated and the house fumigated.

Subsequently, ten Europeans and seven natives had yellow fever in that gaol. On the 16th, 23rd, and 24th July, cases of yellow fever occurred among the troops, and soon after this became general all over the town. No connection between these cases has been traced. Is it not possible that mosquitos carried that fever into Jones's and into the gaol to the prisoners?

BERMUDA,
1900.

THE EPIDEMIC OF 1856.

Her Majesty's ships "Argus" and "Malacca" and a merchant schooner "Margaret Musson" arrived from the West Indies and were quarantined at Ports Island. Numbers of yellow fever patients were landed and treated at Ports Island Hospital.

The "Argus" arrived 30th March, with yellow fever on board, remained at Ports Island till the 23rd April, and then sailed in quarantine. The "Malacca" arrived 4th June, likewise with yellow fever, remained at Ports Island till 28th June, and then sailed in quarantine. The "Margaret Musson" arrived 28th July. William Roberts, a native of Bermuda, had returned home in the "Margaret Musson." There was some reason to believe that this man had had yellow fever, and eight days after his arrival the first yellow fever case appeared in his neighbourhood on the 5th August.

On the 10th August another case occurred. With reference to this patient, Miss Maria Frith, Dr. Park Tucker considered that there was a kind of mediate connection between this, his first case, and H.M.S. "Malacca," because the patient resided abreast of Ports Island (on the mainland) when that ship had been in quarantine. Between the departure of the "Malacca" and the date of the attack 43 days had elapsed. The fumes of roasted coffee from the "Malacca" were said to be distinctly smelled by the inhabitants of Warwick, and were believed by some to have been the cause of the fever cases which occurred in Warwick. May not this wind which blew the fumes of coffee have brought over from the quarantine hospital a few *Culex* mosquitos contaminated with the germs of yellow fever?

Dr. C. F. Edwards, in his report, says "The unusual prevalence of northerly winds during the period of the epidemic was somewhat remarkable."

The first case that occurred in the convict establishment was that of Warder Smith, who visited his family in Devonshire parish two evenings previous to his attack, and passed the night there. The morning after he returned to duty his daughter was attacked with fever and died, other cases subsequently occurring in the vicinity in which Mr. Smith's family resided. Smith was admitted into the "Thames," August 23rd, and discharged cured September 3rd. The two next cases originated on the "Thames," and occurred on the same day, September 9th, 17 days after the admission of Smith. No communication took place between Smith and these cases. The fever spread rapidly in the ship, 19 cases having occurred between 9th September and 8th October.

The origin of the 1853 epidemic seems to be involved in much obscurity.

After carefully reading the ancient records and the histories of the epidemics of 1864, 1856, 1853, and 1843, but especially

those of 1864 and 1856, which are more full and explicit than the others, in the light of these recent investigations and discoveries, one is very forcibly impressed by some of the following facts:—

BERMUDA,
1900.
—

It was noticed that the disease seemed to follow the course of the wind, fresh cases generally occurring to the leeward; mosquitos go with the wind.

Many instances of a cessation of the disease, with fresh outbreaks some 20 days after, can be found in these reports. The marked interval of time between the first cases and the general outbreak of the disease seems to correspond with the time required by the parasite of yellow fever to undergo a definite cycle of development in the body of the mosquito before she is capable of conveying infection. Improvement was shewn by fewer cases occurring among troops when they were encamped in exposed and windy places, such as Ferry Point, &c. Mosquitos do not like strong wind.

The early settlers in Bermuda have, as far as I know, left no account of mosquitos, and it seems impossible to believe that they would not have done so if they had been present. It therefore seems probable that mosquito *Culex* has been introduced here by ships or travellers. And the reason we have no malaria is that we have not yet imported the *Anopheles* mosquito, or there may not be the conditions in the soil or water required to support this and other species of mosquitos. However this may be, we have had epidemics of yellow fever, and have now a certain number of cases of elephantiasis, and *Culex* mosquitos. The filaria or blood parasite of this last-named disease is also said to be propagated by mosquitos.

The mosquito then is far more dangerous and more deadly to man than the most poisonous snakes or the fiercest lions or tigers.

* * * * *

ELDON HARVEY,
Medical Officer of Health.

April 10th, 1901.

BERMUDA,
1900.

TABLE I.

Disease.	White.		Coloured.		Total.
	Male.	Female.	Male.	Female.	
GENERAL DISEASES.					
Influenza	1	1	—	3	5
Enteric Fever	2	2	3	2	9
Dysentery	1	—	4	—	5
Pyæmia... ..	—	—	1	—	1
Tetanus	3	—	2	7	12
Tubercle	1	—	3	1	5
Tubercle of Lung	3	4	13	8	28
Inherited Syphilis	—	—	1	1	2
Alcoholism	2	—	—	—	2
Cancer	2	6	1	4	13
Purpura	—	—	1	—	1
Immaturity at Birth	4	2	1	2	9
Congenital Malformations	—	1	1	—	2
Debility	2	2	8	7	19
Old Age	4	9	2	10	25
LOCAL DISEASES.					
Nervous System—					
Sub-section 1.					
Locomotor Ataxia	1	—	—	—	1
Meningitis	2	2	2	—	6
Softening of Brain... ..	—	3	—	2	5
Carried forward	28	32	43	47	150

Table I.—*continued.*BERMUDA,
1900.

Disease.						White.		Coloured.		Total.
						Male.	Female.	Male.	Female.	
Brought forward						28	32	43	47	150
LOCAL DISEASES— <i>cont.</i>										
Nervous System— <i>cont.</i>										
Sub-section 2.										
Apoplexy						1	1	4	2	8
Paralysis						2	4	1	10	17
Eclampsia (Infantile)						—	2	3	7	12
Eclampsia (Uræmic)						—	—	—	2	2
Epilepsy						—	—	—	2	2
Laryngismus Stridulus						—	—	—	1	1
Neurasthenia						—	1	—	—	1
Sub-section 3.										
Melancholia						—	—	—	1	1
Dementia						—	2	—	—	2
Insanity (not differentiated)						1	—	—	—	1
Circulatory System—										
Valvular Disease of Heart						5	—	10	3	18
Rupture of Muscular Substance of Heart						1	—	—	—	1
Syncope						—	—	—	1	1
Embolism						1	—	—	—	1
Heart Disease (not differentiated)						2	3	—	5	10
Respiratory System—										
Bronchitis						3	2	2	6	13
Spasmodic Asthma... ..						—	1	—	—	1
Carried forward						44	48	63	87	242

BERMUDA,
1900.Table I.—*continued.*

Disease.	White.		Coloured.		Total.
	Male.	Female.	Male.	Female.	
Brought forward	44	48	63	87	242
LOCAL DISEASES— <i>cont.</i>					
Respiratory System— <i>cont.</i>					
Congestion of Lungs	—	—	2	—	2
Pneumonia	3	4	9	7	23
Broncho-Pneumonia	—	1	1	—	2
Abscess of Lung	1	—	—	—	1
Phthisis	1	1	1	5	8
Emphysema	—	—	1	—	1
Pleurisy	—	—	1	—	1
Empyema	1	—	—	—	1
Digestive System—					
Stomatitis (Infantile)	—	—	—	2	2
Disorders of Dentition	—	—	—	1	1
Inflammation of Tonsils	1	—	—	—	1
Inflammation of the Stomach	—	1	1	1	3
Indigestion (Infantile)	—	1	3	1	5
Inflammation of Intestines	1	3	3	5	12
Ulceration of Intestines	1	—	1	1	3
Intestinal Dyspepsia	—	—	—	1	1
Diarrhoea	7	3	10	5	25
Inflammation of Liver	—	—	1	—	1
Peritonitis	—	—	1	1	2
Dropsy	—	—	—	3	3
Carried forward	60	62	98	120	340

Table I.—*continued.*BERMUDA,
1900.

Disease.	White.		Coloured.		Total.
	Male.	Female.	Male.	Female.	
Brought forward	60	62	98	120	340
LOCAL DISEASES— <i>cont.</i>					
Lymphatic System—					
Elephantiasis	—	—	—	1	1
Urinary System—					
Acute Nephritis	1	1	—	1	3
Bright's Disease	—	—	4	1	5
Hæmaturia	1	—	—	—	1
Inflammation of the Bladder	2	—	—	—	2
Generative System—					
Stricture of Urethra	—	—	1	—	1
Diseases connected with Parturition—					
Still Birth	2	1	13	13	29
Asphyxia of Infant	1	—	—	—	1
Diseases consequent on Parturition—					
Sudden Death after Delivery	—	—	—	1	1
Skin—					
Psoriasis	—	—	—	1	1
INJURIES.					
General—					
Sunstroke	1	—	—	—	1
Multiple Injury	1	—	1	—	2
Suffocation from Submersion	4	1	1	—	6
Suffocation from Overlaying	—	—	1	—	1
Carried forward	73	65	119	138	395

BERMUDA,
1900.

Table I.—*continued.*

Disease.	White.		Coloured.		Total.
	Male.	Female.	Male.	Female.	
Brought forward... ..	73	65	119	139	395
INJURIES—<i>cont.</i>					
Local—					
Wound (Gunshot) self-inflicted	1	—	—	—	1
Concussion of Spinal Cord	—	—	1	—	1
Injuries self-inflicted not differentiated ...	—	—	1	—	1
Injuries (not differentiated)	1	—	1	—	2
Total Causes specified	75	65	122	138	400
Causes not specified	2	3	10	8	23
General Total	77	68	132	146	423

No. 5.

BRITISH HONDURAS.

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1900.

REPORT BY THE COLONIAL SURGEON FOR 1900.

PUBLIC HEALTH.

There are two items of interest to record for the year, viz., *first*, the occurrence of a glandular ailment with febrile symptoms, and, *second*, diphtheria was reported officially for the first time as occurring in Belize.

Diphtheria.

For some years past it was suspected that diphtheria occasionally occurred in Belize. But during 1900 it was for the first time officially reported, by three medical practitioners, as occurring in their practice. The first case was reported on the 30th July, 1900, and from that time to the end of the year six other cases were reported.

Glandular Ailment.

In his report, Dr. Gann, Assistant Colonial Surgeon, Corosal, says:—"In examining this outbreak as a whole, there can, I think, be no reasonable doubt that we have to deal with a specific, more or less contagious, disease, the most prominent symptoms of which are glandular enlargements and fever lasting about fourteen days, both accompanied and followed by constitutional disturbances far in excess of those warranted by the symptoms themselves, and not with a mere fortuitous series of glandular enlargements and fever. So far as I am aware, there is no other disease of which the above three conditions form the chief and characteristic symptoms except bubonic plague, and therefore, in my opinion, there has passed over the northern district of the Colony an epidemic of bubonic plague, of an exceedingly mild and innocuous variety it is true, but nevertheless a distinct variety of the disease." Dr. Gann is the only medical officer who has seen these cases in progress; his opinion is therefore entitled to respect, and the manner in which this disease made its appearance lends countenance to his view of the matter.

It would seem that those employed in mahogany and logwood cutting are liable to suffer from glandular swellings, but in

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such cases there is little or no febrile or constitutional disturbance. The affection is common enough to have earned a special name for itself, "waxing kernel"; but, though common, it is of so trifling a nature that medical aid is seldom sought. But the affection referred to by Dr. Gann appears to be a distinct disease, and those who have experience of "waxing kernel" regard this affection as something new in their experience.

The facts are as follows:—The mail which arrived here on the 5th March, 1900, brought newspapers containing statements that bubonic plague had appeared in the island of Cozumel. To us this was a matter of importance, for the Mexican Government were using this island as a collecting dépôt for supplies and troops to be employed in an expedition against the Maya Indians, and, in point of fact, the headquarters of this expedition had already been established at a place within easy reach of, and in almost daily communication with, Belize and Corosal.

On the 7th March, two days after the first suspicious breath had reached us, and before we could make any enquiry, it was reported to me that at Bacalar Chico, the nearest British settlement to the Mexican camp, a febrile disorder with glandular swellings had appeared.

One of the persons from this settlement who had recently suffered from this disease confirmed this statement; he spoke of it as something new; and, in response to questions put by me, he said that Bacalar Chico was in frequent communication with Belize and Corosal, and that on the 25th, 26th, and 27th February he, with two others, had visited Northern River. It may be mere coincidence, or it may be significant; but the only places where this disease has been reported are these three places known to be in communication with Bacalar Chico.

Dr. Harrison was then detailed to visit the place and report. He ascertained that there had been nine cases of glandular ailment with fever among a population of about 60 persons. He saw no case in progress, hence he refrained from giving a diagnosis; he regarded the matter with suspicion, and recommended that the place be visited from time to time. Thereafter, Dr. Gann, in whose district Bacalar Chico is situated, was directed to visit the place. In the meantime he had had cases of this sort in Corosal. On visiting Bacalar Chico he found that some cases had occurred in the interval between his visit and Dr. Harrison's. Thirteen cases in all had occurred in this place. After his return to Corosal, Dr. Gann himself suffered from the same disease. His annual report sums up the matter.

In the meanwhile, on the 22nd March, Dr. Harrison reported a case in Belize as coming from Northern River, where, it was stated, three others had the same affection. In this case, Dr. Harrison reported that "the swelling is the size of a tangerine orange, quite spherical in shape, and lies below Poupart's ligament." After careful inquiry I find it is not of venereal origin,

"nor sympathetic, but, in my opinion, it is idiopathic." Of this series of cases material was supplied from the last only; in this case, beyond the ordinary micro-organisms of suppuration, nothing was found.

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For the rest of the year I heard nothing more of this disease. In November I reported on the matter, in response to enquiries made in the ordinary official channel by the Local Government Board. That report was subsequently published in the *Journal of Tropical Medicine*. In it I said "As to the nature of the disease, I am unable to express any opinion. The sudden appearance at the present time of a glandular ailment with febrile phenomena, in any settlement, and attacking about 20 per cent. of the population (as at Bacalar Chico), is strongly suggestive of plague. The possibility of importation of this disease is by no means remote, for at the time it was prevalent at Rio de Janeiro, from which place vessels in ballast arrive at Belize and the adjacent Yucatan Peninsula for cargoes of logwood. If the disease was plague, then it must have been of a mild type, and, being introduced into a sparsely populated country, died out. I may add that no special mortality of rats, &c., was observed."*

Measles.

During November and December cases of measles occurred in Belize, but as this is not a notifiable disease, the extent of its prevalence is not ascertainable.

Vital Statistics.

In previous reports I appended tables giving the birth rate and the rate of mortality for the several districts from the principal diseases. Whatever figures may be now submitted will have to be modified in accordance with the result of the Census of 1901. I therefore propose to deal with this matter after the results of the Census are known.

METEOROLOGICAL.

I append a tablet giving the main results of the observations taken during the year. The most noticeable feature is the total rainfall, which, so far, is the heaviest on record.

VACCINATION.

The total number of vaccinations done during the year by members of the department and public vaccinators, and thus brought to my knowledge, has been 562.

C. H. EYLES,

Colonial Surgeon.

15th April, 1901.

* In his covering letter, dated 13th June, 1901, of this report the Governor remarks: "Nothing has occurred since to lead me to believe that these cases were plague."

† Not printed.

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REPORT ON THE PUBLIC HOSPITAL, BELIZE, FOR THE YEAR 1900.

Typhoid Fever.

One case occurred during the year, which ended fatally.

Respiratory Diseases.

In the treatment of pneumonia we were very much more successful, but the mortality for all cases of respiratory diseases still keeps very high.

Diphtheria.

One case was admitted. I was able to thoroughly examine the membrane from the throat and satisfy myself that it was a genuine case.

* . * * * *

J. H. HUGH HARRISON,

Assistant Colonial Surgeon.

Belize,

March 25, 1901.

MEDICAL REPORT ON THE ORANGE WALK DISTRICT FOR THE YEAR 1900.

Water Supply.

In the capital of the district the water supply in the main consists of stored rain water of pure quality, and second only to distilled water in purity. An analysis of this water shows it to be free from organic and mineral impurity. It is pleasing to note that the use of rain water is becoming more universal than it was some years ago. It is rapidly taking the place of well water, even among the poorer classes.

But in the out-lying Indian villages well water is generally drunk, here frame houses with their attached wooden vats are

conspicuous by their absence; this class of water is impure in so far as it contains an excess of mineral matter and is saturated with organic matter. With such a water supply it is easy to understand how the native population (Indians) suffers from anæmia, malarial cachexia, and anchylostomiasis. Enlarged spleens are the rule rather than the exception, and diarrhœa and dysentery are endemic. Impure water is an important factor in causing a high death rate among the Indians, aided materially by defective food and housing and faulty hygienic surroundings.

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Infectious Diseases.

There were no infectious diseases during the year.

Prevalent Diseases.

These are malarial fever, in all its diverse forms and manifestations, frequently linked with scorbutus, purpura, and hæmoglobinuria, also dysentery, diarrhœa, phthisis, and rheumatism. Among the parasitic diseases, the first in importance as regards frequency is the *ascaris lumbricoides*, followed closely by *anchylostoma duodenale*. The *oxyurus vermicularis* and tape-worm are occasionally met with, while the jigger flea and the beef worm (*dermatobia noxialis*) cause some annoyance to bush dwellers.

VITAL STATISTICS.

During the year 222 births and 153 deaths were recorded in the district as compared with last year:—

1899.

Births	...	217, or 43·90 per 1,000
Deaths	...	213, or 43·07 „

1900.

Births	...	222, or 44·91 per 1,000
Deaths	...	153, or 30·95 „

FREDERIC KEYT,

Assistant Colonial Surgeon.

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1900.

MEDICAL REPORT ON THE COROSAL DISTRICT FOR THE YEAR 1900.

PREVALENT DISEASES.

*Bubonic Plague.**

In the early part of the year there appeared in the northern district a specific febrile disease, accompanied by glandular enlargements in various parts of the body, which in many respects so closely resembled the "ambulatory" or "larval" forms of bubonic plague that I think it is well to treat of the matter in some detail.

On March 5th, 1900, I received a communication from the Colonial Surgeon, informing me that the United States Government had issued instructions, from which it would appear that plague had broken out in the island of Cozumel, and requesting me to observe closely the course of events in Corosal, in case of invasion, either from the adjacent Mexican camp or by means of wandering Indians.

On March 10th I received a further communication from the Colonial Surgeon, to the effect that suspicious cases of glandular enlargement had been reported from Bacalar Chico, in the island of Ambergris, and on March 15th I received the copy of a report made by Dr. Harrison on these cases after a short visit to the place.

On March 13th I reported to the Colonial Surgeon some suspicious cases of glandular enlargement which had come directly under my notice in the town of Corosal, pointing out that though there were only four cases which had been sufficiently severe to require medical treatment, there were, nevertheless, a number of less severe cases, of which, although I had heard rumours, I had not been able to gather details from personal observation.

On March 18th, in accordance with instructions received from the Colonial Surgeon, I visited Bacalar Chico, and reported on eleven cases of glandular enlargement which had come under my notice, all of which were, or had been, accompanied by febrile disturbance. In some of these cases the disease was just commencing, in others it was at its height, and in others it had almost passed. In three of the patients distinct glandular enlargement, with rise of temperature, was present at the date of my visit. I learnt in Bacalar Chico that the same disorder was prevalent in many of the small Indian settlements along

* See foot note in Dr. Eyles' report, p. 3.

the east coast of Yucatan, and it was the general belief that the disease had been imported from there.

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On March 20th I reported two more cases of glandular enlargement, accompanied by fever, from the town of Corosal, and on the following day, after premonitory symptoms of headache, nausea, furred tongue, and loss of appetite, I was myself seized with the disease. My temperature went up to 101° , and on the following day I noticed several enlarged glands in my left axilla. The disease lasted with me for about 14 days, but was accompanied by lassitude and depression out of all proportion to the initial symptoms, indeed, I may say that I have never completely recovered, as I have been liable to almost weekly attacks of fever ever since.

On April 2nd the Colonial Surgeon notified me that the disease had broken out at Northern River. In examining this outbreak as a whole, there can, I think, be no reasonable doubt that we have to deal with a specific, more or less contagious, disease, the most prominent symptoms of which are glandular enlargement and fever, lasting about 14 days, both accompanied and followed by constitutional disturbance far in excess of that warranted by the symptoms themselves, and not with a mere fortuitous series of cases of glandular enlargement and fever. So far as I am aware there is no other disease of which the above three conditions form the chief and characteristic symptoms except bubonic plague, and therefore, in my opinion, there has passed over the northern district of this Colony an epidemic of bubonic plague, of an exceedingly mild and innocuous variety it is true, but nevertheless a distinct variety of the disease, and this opinion is confirmed and justified in referring to the literature of the complaint in the best authorities, for there it is stated that "premonitory," "larval," or "ambulatory" varieties frequently precede the actual outbreak, an interval of months, or even years, not uncommonly separating the two. This fact was demonstrated in one of the Indian outbreaks, where the milder epidemic not only preceded the more severe by several months, but was separated from it by several hundreds of miles. Four years previous to the Hong Kong outbreak in 1898 two medical men had called attention to the plague bacillus in certain cases of pneumonia which were occurring with great frequency at that time; a special commission was appointed to investigate the matter, and reported that the doctors were mistaken, but, in reality, it was the commission who were mistaken, as after remaining latent for four years the plague broke out with great virulence in 1898. I have dwelt at length on this outbreak because I think that we should not be lulled into a sense of false security in regard to what it may foreshadow, but that a careful watch should be kept on all suspicious cases throughout the Colony, so that in the event of an outbreak amongst us of undoubted bubonic plague we may not be taken entirely unaware.

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Dysentery.

There has been a most satisfactory decrease both in the number of cases and in the number of deaths caused by this disease, which in former years has proved such a scourge to both this and the Orange Walk district. Only twelve deaths from the disease were registered, and as these were chiefly in the out-districts and uncertified by a medical practitioner, I am inclined to think that the greater number of them were in reality due to infantile and other forms of simple diarrhœa, especially as within the precincts of the town of Corosal itself, where the disease has in former years always been most severely felt, instead of treating from 70 to 100 cases during the year, I have only had from 10 to 15 under my care, and these of a far milder variety than usual. As the poison has always been, and still remains, a mystery to us, so with the antidote. The conditions in the town, climatic, sanitary, and social, are, as far as one can judge, precisely the same as in the previous years, yet Nature herself seems to have taken the disease in hand and in some mysterious way to have worked a cure. We can but hope that this happy state of affairs may continue till the disease is extinct in this district.

VITAL STATISTICS.

The total number of births in the district during the year was 272, the total number of deaths 172. In both directions these numbers compare most favourably with former years, the number of deaths being lower and the number of births higher than in any previous period of twelve months. Compared with last year the deaths decreased by 7 per cent., whilst the births increased by no less than 40 per cent. The infantile mortality is again unfortunately very high, being even worse than in previous years. There occurred 40 deaths of children under the age of one year, comprising 35·4 per cent. of the total death-rate, and 21 deaths of children between the ages of one and five years, forming together 61 child deaths, or no less than the incredible percentage of 43·00 of the entire death-rate. I have so frequently pointed out in former annual reports the causes of this slaughter of the innocents, that it would be mere waste of space to mention them again, but until stringent legislative measures are taken to combat this state of affairs, no high birth-rate and low death-rate will have the effect of increasing the population.

THOMAS GANN,

Assistant Colonial Surgeon.

Corosal,

13th February, 1901.

ANNUAL MEDICAL REPORT ON THE CAYO DISTRICT OF BRITISH HONDURAS FOR 1900.

BRITISH
HONDURAS,
1900.

VITAL STATISTICS.

The population of the district at the commencement of the year 1900 has been estimated at 3,134, assuming a natural increase of 54 on the preceding year.

The total number of births registered in the district during the year was 107, or 34.142 per 1,000 of the estimated population.

The total number of deaths was 78, giving a mortality of 24.888 per 1,000.

The following table compares the birth and death rates for the last four years:—

Year.			Births.	Birth-rate per 1,000.	Deaths.	Death-rate per 1,000.
1897	...	...	104	34.965	107	35.973
1898	...	...	116	38.346	118	39.007
1899	..	...	133	43.182	91	29.546
1900	...	...	107	34.142	78	24.888

The number of deaths recorded of children of five years of age and under was 32, or nearly 36 per cent. of the total for the year.

Although this is a very high percentage, still it is a distinct improvement on the preceding year, when the figures stood at 47, or rather more than 51 per cent. of the total deaths for that year. This improvement was due to the non-appearance of any form of epidemic disease, and not, I am sorry to say, to better care and feeding of infants—the real objects to be aimed at. Unfortunately, for reasons mentioned in my report for 1899 (section 5), little or nothing can be done in the direction where most it is needed.

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HONDURAS,
1900.

The following table shows the infantile mortality in this district during the last four years:—

Year.	Total Deaths.	Deaths of Infants of five years and under.	Infantile Mortality Percentage of Total Deaths recorded.
1897 ...	107	37	34·5
1898 ...	118	55	46·6
1899 ...	91	47	51·6
1900 ...	78	32	35·8

Without drawing any distinction as to age, the death-rate was greatest among the Indians, the figures being 52, or 16·59 per 1,000 of the entire population.

PREVALENT DISEASES.

Malarial Fevers.

These were the supposed cause of 33 deaths, being 42·307 per cent. of the total number of deaths recorded, and giving a mortality rate of 10·530 per 1,000 of the estimated population. This is a slight improvement on the preceding year, when the figures stood at 12·013 per 1,000.

Of the total number of deaths from this cause, 26 occurred amongst the Indian population.

Since the above returns were all classed as "uncertified," the above figures can only be regarded as approximate.

There is no doubt, however, that if we exclude those diseases, or rather groups of symptoms, occasioned by the presence of the round worm (*A. lumbricoides*) in children, malarial fever is the most prevalent of all. The type is usually intermittent, and the variety known as quotidian, and quinine is an almost certain cure in uncomplicated cases.

Diarrhœa.

Only two deaths were reported from this cause.

Under the head of Dysentery four deaths were returned by the Deputy Registrars, but there can be little doubt that these were in reality cases of diarrhœa, complicated by, and probably occasioned, in at least two instances (infants), by the presence of ascarides.

My own experience is that intestinal diseases generally are comparatively seldom met with; and that dysentery, in the true sense of the term, is decidedly rare, for I have neither seen nor heard of a typical case for several years past.

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This result is chiefly, no doubt, due to the absence of certain conditions which are known to foster the development and spread of such diseases, and especially, I would say, is due to the entire absence of wells, so frequently found to contain a contaminated water supply.

INFECTIOUS DISEASES.

No infectious disease, as defined under Ordinance No. 29 of 1894, occurred.

The district was also happily free from whooping cough and measles. One death from the former disease was stated to have occurred in the village of Arenal, in the month of January, but this is certainly a mistake.

* * * * *

F. L. DAVIS,

Assistant Colonial Surgeon.

February 26, 1901.

CEYLON,
1900.

No. 6.

CEYLON.

CEYLON HOSPITAL RETURNS FOR 1900.

The PRINCIPAL CIVIL MEDICAL OFFICER and INSPECTOR-GENERAL of HOSPITALS to the HON. THE COLONIAL SECRETARY.

Office of the Principal Civil Medical Officer and
Inspector-General of Hospitals,

SIR,

Colombo, May 9, 1901.

I HAVE the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State for the Colonies, the Medical Report on the health and sanitary condition of the Island for the year 1900, together with the Returns, &c., appended thereto.

POPULATION, BIRTH- AND DEATH-RATES

The estimated population at the end of the year was 3,612,303. 136,051 births were registered and 100,873 deaths. The birth- and death-rates were 38.2 and 28.3 per mille respectively, as calculated upon the estimated population at the middle of the year. The population at the end of the year 1899 was 3,489,293 and the birth- and death-rates for that year were 38.0 and 30.2 per 1,000 respectively, so that compared with the year 1899 the year under review shows an increase of population of 123,010, but the birth-rate is 2 per 1,000 more and the death-rate 1.9 per 1,000 less.

PUBLIC HEALTH.

The public health of the inhabitants of the Island has been good. There has been an absence of those widespread severe outbreaks of malarial fever which characterized the previous year, but cases of cholera and small-pox have been numerous. The sanitary conditions throughout all the towns and villages of the Island are always being improved.

Malarial Fever.

In the Western Province the most sickly and malarious district was that of Negombo, a good part of which is low-lying and swampy, and cases always occur there after the burst of the south-west monsoon.

In the North-Western and Sabaragamuwa Provinces malarial disease was the cause of the largest number of admissions.

In the Eastern Province malarial fever existed in a mild and limited degree.

In the Southern Province this disease existed in the outlying districts to some extent, but the cases were generally of a mild type.

It was noticed that in the Northern Province this disease was present in a mild form, and was most prevalent in the first quarter of the year.

In the Province of Uva the disease was not prevalent.

In the Central and North-Central Provinces, malaria, although present after the monsoon rains, did not assume an epidemic character anywhere, and those cases which occurred readily yielded to treatment.

In my report for last year I pointed out the connection shown between the outbreaks of malarial fever and the monsoon rains. and this year the same circumstance was again noticed. There can be little doubt that at least one cause, and, as far as is known, the only cause, of the distribution of malaria is by a special mosquito, and as this subject has been made known far and wide, not only in Medical Journals, but in the newspapers and periodicals throughout the world, it is reasonable to expect that in the near future this disease will become very much less common.

The most common type of malarial fever in this Island is the tropical (summer-autumn), and is found extensively among both Europeans and natives. No hæmoglobinuric or black-water fever up to the present has been seen here, and though children suffer as severely as adults, yet Kala Azar has never been reported.

Prevention.

During the past year much has been done in endeavouring to find out the best means for the prevention of malarial fever applicable here. The methods which have been under consideration are the following:—

- (1) Quinine treatment.
- (2) Prevention of mosquito bites.
- (3) Prevention of the formation of stagnant pools of water
- (4) Destruction of the anopheles.

(1.) Quinine Treatment.

Compulsory quinine administration is, of course, quite impossible, but much has been done by providing quinine in all the small dispensaries and stations and by giving quinine to the local post offices, at which it can be purchased, so that it is possible for the poorest persons to obtain without any difficulty plenty of quinine, if they so desire.

CEYLON
1900.

(2.) *Prevention of Mosquito Bites.*

Mosquito curtains are to be found in most districts among the better classes, but unfortunately so little care is applied to their use that they are often practically valueless.

(3.) *Prevention of the Formation of Stagnant Pools of Water.*

All hollows containing stagnant water should be filled up, and where this is not possible some aperture of escape for the water should be made in order to convert the otherwise stagnant into running water, in which the anopheles will not develop.

(4.) *Destruction of the Anopheles.*

Inquiries have been made into the Culicidæ of the Island during the past year, and specimens have been sent to the British Museum, and the anopheles have been reported at Trincomalee by Major Manders, R.A.M.C., but so little is at present known of its habits and distribution in Ceylon that no definite statement about its destruction can be made. Steps, however, will be taken in 1901 to obtain definite information about these matters.

Cholera.

I regret I am not able this year to present such a favourable statement with regard to this disease as I was in the happy position to do in 1899.

During the year under review cholera outbreaks were very general throughout the Island in the Western, Central, North-Western, Eastern, North-Central, and Sabaragamuwa Provinces, and in the Province of Uva. The only Provinces which were free were the Northern and Southern. Cholera was prevalent throughout the cooly-recruiting districts of Southern India, and the outbreaks can in every instance be traced ultimately to them. The first case was reported in July on an estate in the Ramboda district of the Central Province, and outbreaks occurred soon afterwards in other parts of the Central Province and in the Province of Uva. There were 104 cholera centres up to the end of the year. The most severe outbreak occurred at Buttala in the Province of Uva. The Colonial Surgeons of the Central and Uva Provinces and their subordinates did excellent work and were able eventually to completely stamp out the disease.

I am convinced that had the North road cooly route been open the numbers of those attacked would have been far greater. The immunity of the Northern Province is due to this cause, and is another proof that this disease is always imported, for no immigrant coolies go to the north, as there are no tea estates there.

The subjoined table shows the Provinces in which outbreaks occurred, the number of those attacked, and of those who died, with their nationality:—

Provinces.	Nationality.											
	No. of Cases and Deaths.		Sinhalese.		Moors.		Tamils.		Malays.		Immigrants.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Western ...	23	20	3	2	5	4	6	6	—	—	9	8
Central ...	154	118	80	62	5	5	4	4	—	—	64	46
North Western ...	14	9	5	2	8	6	—	—	—	—	—	—
Eastern Province	33	21	—	—	1	—	29	20	—	—	—	—
North Central ...	103	54	18	12	51	24	28	16	6	2	—	—
Uva ...	484	231	379	184	37	18	22	12	—	—	43	17
Sabaragamuwa ...	3	3	—	—	—	—	—	—	—	—	3	3
Total ...	814	456	485	262	107	57	89	58	6	2	119	74
											8	3
											814	456

CEYLON,
1900.

In the Western Province 9 cases, with 8 deaths, were admitted into the Infectious Diseases Hospital, Colombo, and were brought by steamers.

At Ragama cooly camp 11 outbreaks occurred during the year.

In the Central Province there were 154 cases with 118 deaths; there were 63 cases and 47 deaths on estates, and 91 cases with 71 deaths in towns and villages. Among estates the outbreak on Pallekelly, near Kandy, was the most severe, with 27 cases and 21 deaths.

Among towns and villages, the village of Hanguranketa was the most severely afflicted, with 40 cases and 33 deaths.

At Tamankaduwa and adjoining villages in the North-Central Province a severe outbreak occurred: 87 were attacked and there were 47 deaths. This outbreak was successfully combated after it had lasted a month.

The largest outbreaks occurred in the Province of Uva in the Badulla, Buttala, Medagama, Muppane, Teldeniya, and Alutnuwara districts.

The greatest number of those attacked was at Buttala, viz., 216 cases with 99 deaths. Extra medical officers and apothecaries were sent to Uva for cholera duty, and rendered good service, which, with the vigorous co-operation of the Government Agent, stamped out the disease in a comparatively short time.

Smallpox.

This disease is not endemic in this Island; the outbreaks of smallpox can always be traced to imported cases in the first instance. During the year under review several cases occurred in the Western, Central, Southern, North-Western, Eastern, and Uva Provinces; there were 252 persons attacked, with 42 deaths, distributed as follows:—

—	Cases.	Deaths.
Western Province... ..	74	11
Central Province	141	26
Southern Province	15	1
North-Western Province ...	14	1
Eastern Province	1	—
Province of Uva	7	3
Total	252	42

In every centre the disease was well held in check, which was accomplished by segregation, removal to hospital, vaccination,

and re-vaccination. The population of Ceylon is well protected by vaccination, and there is an excellent law which makes it compulsory for those exposed to the contagion to be vaccinated or re-vaccinated.

CEYLON,
1900.

Western Province.

This disease did not prevail to any extent in Colombo; 11 cases remained at the end of the year 1899 at the Infectious Diseases Hospital, and 53 cases were admitted during 1900 from the town and harbour.

Two cases were reported on estates in Avisawella and Horana; 8 cases were reported in villages outside Colombo, 5 from Moratuwa, 2 from Walgama, and 1 from Kottawa. In all those instances where the disease occurred outside the city the contagion could be satisfactorily traced to cases in Colombo. During the prevalence of smallpox it is impossible to prevent concealment of cases, especially in the Moor quarter, although female doctors were employed to search the dwellings.

In the Southern Province 15 cases with 1 death occurred on estates; the infection was traced to a cooly who had lately arrived from India, but who had been vaccinated at Ragama.

In the Eastern Province there was only one case.

North-Western Province.—A short but sharp outbreak occurred at Kurunegala, in which 14 cases occurred with 1 death. This outbreak was introduced by a Malay man from Colombo.

Chickenpox.

It has been remarked that smallpox and chickenpox often run concurrently during an outbreak of the former, and this fact has been frequently demonstrated here. There were 935 cases of this mild infectious disease reported from various parts of the Island distributed as follows:—

				Cases.
Western Province	...	...	...	192
Central Province	...	...	...	493
Northern Province	...	...	...	18
Southern Province	...	...	...	99
Eastern Province	...	...	...	30
Province of Uva	...	...	...	89
Province of Sabaragamuwa	...	...	...	14
Total	...	...	...	935

CEYLON,
1900.

Most of the cases were treated in their own homes, but in towns where an Infectious Diseases Hospital exists many of the cases were moved there.

Measles.

This disease did not assume any alarming proportions in any of the towns or villages, but as will be seen in the report on the Prisoners-of-War Camp, Diyatalawa, it assumed a serious epidemic form there, where no less than 251 cases occurred, of whom 7 died, or a mortality of 2·7 per cent.

Dysentery.

This disease was fairly equally distributed throughout the Island.

In the Western, North-Western, and Sabaragamuwa and Southern Provinces it was most prevalent.

In the Northern Province the numbers attacked were far less than in the year previous. All over the Western Province the disease was present, but the type of the disease was mild.

In the Eastern Province the prevalence was not marked, and it was present during the dry season.

In Uva the cases were comparatively few.

In the Central and North-Central Provinces it prevailed, but never in an epidemic form.

The total number of cases treated in all hospitals was 3,204, with 934 deaths. The largest number treated in any one institution was at the General Hospital, Colombo, where 757 cases were admitted, of whom 82 died.

Enteric Fever.

The number of cases treated in the various hospitals throughout the Island was 224, with 77 deaths. The General Hospital, Colombo, admitted 111 cases, of whom 44 died. The cases admitted to the Colombo Hospital included many from French transports and from the transports which brought the prisoners-of-war. Some improvement has been made in the number of cases notified. This remark applies especially to Colombo, owing to the attention of the public having been drawn to the law by advertisement in the "Gazette" and local press; still I have no doubt very many cases occurred, of the existence of which the authorities had no knowledge. A very serious outbreak of this disease occurred among the prisoners-of-war at the Camp at Diyatalawa, reference to which will be made in the special paragraph devoted to the Camp.

Dr. H. M. Fernando has made weekly lists of cases of enteric fever cases admitted into the Colombo hospital from within Municipal limits, and has come to the conclusion that this disease is "widespread throughout the city of Colombo." He attributes this to the pollution of surface wells.

CEYLON,
1900.

Causation of Enteric Fever.

While in most cases enteric fever is caused by polluted water, as for example in Colombo, yet there is little or no doubt, though the experimental proof is wanting, that it also spreads by other means, such as by the common fly, dust, &c.

Leprosy.

The total number of cases reported during the year 1900 was 635, against 506 cases in the previous year, being an increase of 129, but the total number of new cases only exceeded by two those reported in 1899, as will be seen in the following table:—

Return of Lepers treated as Outdoor Patients in the Hospitals and Dispensaries during 1900:—

—		1899.	1900
Western Province	...	40	53
Central Province	...	24	27
Northern Province	...	15	11
Southern Province	...	25	26
North-Western Province...		14	7
Eastern Province ...	...	53	43
North-Central Province ...		2	2
Province of Uva ...	...	14	13
Province of Sabaragamuwa		21	28
Total	... ..	208	210

Three hundred and ninety-nine cases were treated in the Leper Asylum, Hendala, and 26 in the Kalmunai hospital. It is not possible yet to form an opinion whether this disease is

CEYLON, rapidly increasing. The Superintendent of the Leper Asylum
1900. thinks there is a progressive increase, and gives the following
table of distribution:—

—			New Cases.
Western Province	...	...	54
North-Western Province	...	...	2
Province of Sabaragamuwa	...	...	1
Southern Province	...	...	9
Central Province	...	...	2
Southern India	...	...	10

The Western Province, as usual, shows the largest number of cases, but this may be due to the convenience of the Asylum for the residents. Colombo comes first with 27 new cases, and it will be noticed that ten cases were directly imported from India. It might be advisable to prevent lepers from landing on our shores, but legislation would have to make this course practicable.

An Ordinance is being considered by the Legislative Council to make the segregation of lepers compulsory. Thirty-nine deaths occurred in the Asylum, and the duration of the disease in these individuals ranged from two to twenty-six years.

Anchylostomiasis.

This disease is constantly being introduced from India by Malabar coolies, and is spread broadcast owing to the careless habits of the cooly, who pollutes the soil and water with his excreta. This disease is on the increase. There were 1,336 admissions in all hospitals, with 273 deaths. The largest number were treated in the Colombo hospital, viz., 485 admissions, with 92 deaths. The greatest number of cases occur in the planting districts. The danger of the disease exists in the profound anæmia, which so lowers the vitality that the victim is carried off by practically any intercurrent complaint.

I am inclined to regard a part at least of the increase in the reported cases of anchylostomiasis to the fact that the disease is recognized now, while only a few years ago it would probably have been regarded as anæmia, consequent on malarial fever.

*Parangi.*CEYLON,
1900.
—

From the hospital returns it would appear that the number of admissions for this disease has steadily increased during the last five years, but not in proportion to the increase of the population, so that the number affected in ratio to the inhabitants is becoming less every year; as food becomes more easily obtainable with the extension of irrigation, and as sanitary methods become more generally known, this disease will show a marked decrease. The death-rate is remarkably small; out of 3,646 admissions for this disease during the year there were only nine deaths.

I attach herewith a return of the principal diseases for the last five years for purposes of comparison:—

Comparative Statement of Principal Diseases for the last Five Years.

Year.	Cases.	Deaths.	Year.	Cases	Deaths.
	Cholera.			Measles.*	
1896 ...	106	94	1896 ...	42	—
1897 ...	216	124	1897 ...	132	2
1898 ...	533	320	1898 ...	45	1
1899 ...	—	—	1899 ...	29	1
1900 ...	814	456	1900 ...	23	—
	Smallpox.			Dysentery.	
1896 ...	19	3	1896 ...	2,346	735
1897 ...	35	3	1897 ...	2,267	721
1898 ...	14	3	1898 ...	2,774	1,034
1899 ...	334	56	1899 ...	2,639	930
1900 ...	252	42	1900 ...	3,204	934
	Chickenpox.			Enteric Fever.*	
1896 ...	579	1	1896 ...	172	59
1897 ...	508	—	1897 ...	148	42
1898 ...	84	—	1898 ...	161	52
1899 ...	1,211	1	1899 ...	170	61
1900 ...	935	—	1900 ...	224	77

* Cases of these diseases at Boer Camp not included.

CEYLON.
1900.Comparative Statement of Principal Diseases for the last
Five Years—*continued*.

Year.	Cases.	Deaths.	Year.	Cases.	Deaths.
	Leprosy.			Parangi.	
1896 ...	370	22	1896 ...	3,121	10
1897 ...	435	34	1897 ...	3,195	18
1898 ...	528	51	1898 ...	3,267	14
1899 ...	506	53	1899 ...	3,080	10
1900 ...	635	43	1900 ...	3,646	9
	Anchylostomiasis.			Malarial Fever.	
1896 ...	830	170	1896 ...	7,041	496
1897 ...	1,276	274	1897 ...	6,428	453
1898 ...	1,201	212	1898 ...	6,097	299
1899 ...	1,255	234	1899 ...	8,305	697
1900 ...	1,336	273	1900 ...	6,226	147

METEOROLOGICAL CONDITIONS AND THEIR RELATION TO
PUBLIC HEALTH.*Introductory.*

It is not possible to compare the meteorological conditions and disease in 1900 in this report, as the Report on Meteorology for that year is not available. It is, however, possible to deal with 1899, which could not be done in last year's report, and to compare that year with 1898.

The subject will be considered under the following heads:—

- (a) Relative amount of disease in the different seasons.
- (b) Relative amount of malaria in the different seasons.
- (c) Relative amount of dysentery in the different seasons.
- (d) Relative amount of the mortality in the different seasons.
- (e) Relative amount of the mortality in the medical institutions in the different seasons.
- (f) Relative mortality of malaria in the different seasons.
- (g) Relative mortality of dysentery in the different seasons.
- (h) Relative amount of rainfall in the different seasons.
- (i) Conclusions and deductions.

(a.) *Relative amount of Diseases in the different Seasons.*

CEYLON,
1900.

In Chart I.* the red line indicates the amount of disease in the different months in 1898, and the black that of 1899.

It will be seen at a glance that they are both very similar and that in both there has been a large increase of disease in the month of January; while in the two years the diseases treated in the medical institutions of the Colony average about 4,000 for eleven months, they reach nearly 8,000 in January, or twice the amount for the rest of the year. On inquiry as to the cause of this it is found that two diseases are mainly responsible, viz., (1) malaria; (2) dysentery; and it is to these we next turn.

(b.) *Relative amount of Malaria in the different Seasons.*

On turning to Chart II. it is seen that the malarial fevers are very marked towards the end of 1898. Their number begins to increase in October, and rising through November and December reaches a maximum in January, 1899. During February, 1899, there is a marked fall in the cases of malaria, and after this the curves for the two years are not dissimilar, though that for 1899 is relatively higher than 1898.

The reason for the rise in October, November, and December, 1898, and the fall in February, 1899, will be discussed later on.

In the next Chart dysentery is depicted.

(c.) *Relative amount of Dysentery in the different Seasons of the Year.*

In Chart III. is depicted graphically the number of cases of dysentery occurring at the different medical institutions in the various months of the year. When compared with Chart I. a marked similarity is seen. The total number of diseases and the number of cases of dysentery produce very similar curves. As in Chart I. the line of 1898 is very like that of 1899. There is seen the same sharp rise in the number of cases during the month of January, and the same sharp fall in February, and same approximate level for the other ten months of the year. As compared with malaria, it shows the same high level of cases in January and the same fall in February, but not the same rise in October, November, and December, though the 1898 curve points in that way.

With regard to the mortality in Chart IV. there is shown the total mortality.

(d.) *Relative Total Mortality at different Seasons of the Year.*

The line of total mortality begins low in 1898, and continues so till October, when it begins to rise, and continuing to do so

* Charts not reproduced.

CEYLON,
1900.

during November undergoes a rapid increase in December, 1898, reaching its maximum in January, 1899; from this there is a gradual fall in February, March, April, 1899, and then another slight rise to a maximum in June, and a further fall to a minimum for 1899 in October, when the usual rise for November and December is seen. The high point of these curves in January, 1899, and the high point of the total diseases in the same month are to be noted. The rise of the malaria cases in October, November, and December, 1898, and the sharp rise of mortality in December, 1898, must be remembered, as also the rise in dysentery during the same month.

(e.) *Relative Mortality in the Medical Institutions.*

The curves of the two years in Chart V. are very similar: 1898 rises higher in December than 1899. But these curves show a marked difference from the returns of the Registrar-General, there not being the same difference between the two years.

(f.) *Relative Mortality of Malaria in the different Seasons of the Year.*

In Chart VI. the line of 1898 shows that the mortality from malaria began to increase in October, decreased slightly in November, went on increasing in December, and rose to a maximum in January, which only remitted in February, and continued high in March, falling in April, but continuing high all through 1899.

The maximum of the malarial curve in January, 1899, coincides with the maximum of the total mortality curve of both Charts IV. and V.; its rise in the end of 1898 with that of the total mortality in 1898. Its decline in the end of 1899 corresponds with the much slighter rise of that year in both Charts.

(g.) *Relative Mortality of Dysentery in the different Seasons of the Year.*

The mortality in dysentery, Chart VII., shows the same rise in October and November as the others, but in this case the maximum is in November, 1898, and a slight fall takes place in December and January, followed by the sharp fall in February and March, 1899, but with a rise to a maximum again in May, 1899, with a continuation during June and July, and then a fall till November.

The curves for 1898 and 1899 are similar, except at the end of the year, when 1899 is much the lower.

The increase at the end of 1898 and beginning of 1899 corresponds with the rise in both Charts IV. and V. The fall in

February and March corresponds with the fall in Charts IV. and V. The secondary rise in May and June to the same rise in Charts IV. and V.

CEYLON,
1900.

The fall in the autumn and the lesser rise in December, 1899, are the same as in Charts IV. and V.

(h.) *The Relative amount of the Rainfall in the different Seasons.*

There is a marked similarity between the curves for 1898 and 1899. Both ascend sharply in October and fall in November and December; in both there is a minimum in February and a slighter maximum in April, with a fall to a minimum in August.

Conclusions.

Both in the number of cases and in the mortality, malaria and dysentery are powerful factors in modifying the curves of total cases and mortality.

Turning to the rainfall, there is seen to be an abrupt rise in September and October, 1898, and in October, 1899, and a high level in November and December. This rain would cause the land to become covered with pools of stagnant water, in which the mosquitoes could lay their eggs and develop, particularly the anopheles.

Hence the marked increase of malaria in October, November, December, and January.

The increase in dysentery would be brought about by the rise of the sub-soil water and the contamination of wells, &c., thereby.

In both the rain curves there is a fall in February, and the disease curves also fall.

The secondary rise in April of the rain curve corresponds to the rise of malaria in May and of dysentery in April, May, and June.

RETURN of the STATISTICS of POPULATION for the year 1900.

—	Europeans.*	Burghers.	Sinhalese.	Tamils.	Moors.	Malays.	Others.	Total.
Number of Inhabitants in 1900 ...	11,444	25,122	2,251,980	1,092,728	210,390	11,477	9,162	3,612,303
Do. Births during the year 1900 ...	158	675	98,952	27,101	8,682	352	131	136,051
Do. Deaths do. 1900 ...	179	550	65,010	27,679	6,836	381	238	100,873
Do. Immigrants do. 1900 ...	—	—	—	—	—	—	—	207,994
Do. Emigrants do. 1900 ...	—	—	—	—	—	—	—	112,936
Do. Inhabitants in 1899 ...	6,625	24,696	2,229,711	998,847	209,006	11,333	9,075	3,489,293
Increase, 1900... ..	—	—	—	—	—	—	—	123,010
Decrease	—	—	—	—	—	—	—	—

* Including prisoners of war.

RETURN of DISEASES and DEATHS in 1900 at the following institutions:—LUNATIC ASYLUM, JAWATTA; LEPER ASYLUM, HENDALA; LEPER HOSPITAL, KALMUNAI; DE SOYSA LYING-IN HOME; LADY HAVELOCK HOSPITAL, COLOMBO; GENERAL HOSPITAL, COLOMBO; CIVIL HOSPITALS PANADURE, KALUTARA, NEGOMBO, KANDY, KATUGASTOTA, GAMPOLA, MATALE, NUWARA ELIYA, MULHALKELE, MULLAITTIVU, VAVUNIYA, POINT PEDRO, MANTOTA, GALLE, MATARA, HAMBANTOTA, TANGALLA, BALAPITIYA, BATTICALOA, TRINCOMALEE, KALMUNAI, KURUNEGALA, PUTTALAM, MARAWILA, CHILAW, BADULLA, RATNAPURA, KEGALLA, ANURADHAPURA; FIELD HOSPITALS DANDUGAMA, NIKAWERATIYA, ALUTNUWARA, MEDAGAMA, KOLONNA, GODAKAWELA, BUTTALA; IMMIGRANT HOSPITALS DAMBULLA, MANNAR, PULIYADI-IRRAKKAM, PESSALAI, MIHINTALE; and DISTRICT HOSPITALS NEBODA, DIKOYA, LINDULA, KELEBOKKA, UDA PUSSELLAWA, MASKELIYA, DELTOTA, NAWALAPITIYA, RAMBODA, HAPUTALE, LUNUGALA, KARAWANELLA, RAKWANA, BALANGODA, AVISAWELLA, TELDENIYA, and DENIYAYA.

CEYLON,
1900.

Diseases. —	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Smallpox	14	1	
Chickenpox	132	—	
Measles	23	1	
Whooping Cough	13	—	
Mumps	10	—	
Influenza	749	18	
Diphtheria	1	1	
Febricula	70	5	
Enteric Fever	224	77	
Cholera—Asiatic	13	8	
Dysentery	3,204	934	
Carried forward ..	4,453	1,045	

CEYLON,
1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	4,453	1,045	
GENERAL DISEASES— <i>cont.</i>			
Malarial Fever—			
(a) Intermittent { Quotidian	5,825	92	
{ Tertian			
{ Quartan			
{ Irregular			
{ Type un- diagno-ed.			
(b) Remittent	400	55	
(c) Pernicious	1	—	
(d) Malarial Cachexia ...	5,221	883	
Beriberi	5	3	
Erysipelas	94	9	
Pyæmia	17	12	
Septicæmia	77	26	
Tetanus	64	34	
Tubercle—			
(a) Phthisis Pulmonalis ...	711	201	
(b) Tuberculosis of Glands...	108	7	
(c) Lupus	26	—	
(d) Tabes Mesenterica ...	31	6	
(e) Tubercular Diseases of Bones.	8	2	
Leprosy—			
(a) Tubercular	93	10	
(b) Anæsthetic	181	11	
(c) Mixed	216	22	
Carried forward ...	17,531	2,418	

Return of Diseases and Deaths—cont.

CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	17,531	2,418	
GENERAL DISEASES—cont.			
Parangi—			
Yaws	3,646	9	
Syphilis—			
(a) Primary	1,012	3	
(b) Secondary	552	8	
(c) Tertiary	95	7	
(d) Inherited... ..	60	8	
Gonorrhœa	871	8	
Hydrophobia	4	4	
Scurvy	6	—	
Alcoholism	58	—	
Delirium Tremens	6	1	
Rheumatism	2,117	25	
Rheumatic Fever	21	1	
Gout	1	—	
New Growth, non-malignant ...	256	11	
New Growth, malignant ...	248	27	
Anæmia	541	81	
Diabetes mellitus	44	3	
Diabetes insipidus	6	—	
Debility	3,199	336	
Old age	252	85	
Other Diseases	194	20	
Total	30,720	3,055	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-Section 1.			
Diseases of the Nerves—			
Neuritis	26	2	
Facial Palsy	7	1	
Sciatica	19	—	
Meningitis	31	23	
Myelitis	12	7	
Hydrocephalus	1	—	
Encephalitis	2	2	
Abscess of Brain	1	1	
Congestion of Brain	2	—	
Tumour of Brain	1	—	
Infantile Convulsions	20	8	
Eclampsia	5	1	
Other Diseases	5	—	
Sub-Section 2.			
Functional Nervous Diseases —			
Apoplexy	22	15	
Hemiplegia	95	21	
Aphasia	1	—	
Progressive Muscular Atrophy	1	—	
Lat eral Sclerosis	6	1	
Carried forward	257	82	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	257	82	
LOCAL DISEASES— <i>cont.</i>			
Sub-Section 2— <i>cont.</i>			
Functional Nervous Diseases— <i>cont.</i>			
Disseminated Sclerosis ...	9	3	
Locomotor Ataxia ...	18	2	
Paralysis (other forms) ...	94	12	
Chorea ...	12	1	
Paralysis Agitans ...	9	—	
Epilepsy ...	106	12	
Neuralgia ...	73	—	
Hysteria ...	39	—	
Megrim ...	3	—	
Hypochondriasis ...	8	—	
Neurasthenia ...	3	—	
Insomnia ...	2	—	
Inflammation of Membrane of Brain.	8	3	
Other Diseases ...	16	3	
Sub-Section 3.			
Mental Diseases—			
Idiocy ...	7	—	
Mania ...	275	14	
Melancholia ...	187	15	
Dementia ...	134	8	
Carried forward ...	1,260	155	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases	Deaths.	
Brought forward ...	1,260	155	
LOCAL DISEASES—cont.			
Sub Section 3—cont.			
Mental Diseases—cont.			
Delusional Insanity ...	6	—	
General Paralysis of the Insane	2	1	
Epileptic ...	27	2	
Alternating Insanity ...	1	—	
Not Insanity ...	20	—	
Diseases of the Eye—			
Blepharitis ...	27	—	
Conjunctivitis simple ...	186	—	
Conjunctivitis purulent ...	60	1	
Trachoma ...	1	—	
Keratitis ...	74	3	
Ulcers of Cornea ...	196	18	
Opacity of Cornea ...	17	—	
Iritis ...	49	—	
Cataract ...	71	—	
Foreign Body ...	7	—	
Glaucoma ...	5	—	
Diseases of Fundus ...	7	—	
Lachrymal Obstruction ..	1	—	
Other Diseases ...	51	—	
Carried forward ..	2,058	180	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,068	180	
LOCAL DISEASES— <i>cont.</i>			
Diseases of Ear—			
Inflammation of Ext. Meatus	17	1	
Inflammation of Middle Ear	66	—	
Deafness	1	—	
Other Diseases	5	1	
Diseases of Nose—			
Epistaxis	3	—	
Ozoena... ..	28	—	
Nasopharyngeal polypi ...	2	—	
Polypus	2	—	
Other Diseases	2	—	
Circulatory System—			
Pericarditis	14	3	
Valvular disease of Heart ...	130	35	
Fatty degeneration of Heart	5	2	
Hypertrophy of Heart ...	3	1	
Angina pectoris	2	1	
Aneurism	5	1	
Phlebitis	7	1	
Varicose Veins	5	—	
Endocarditis	1	1	
Other Diseases	10	1	
Carried forward ...	2,376	228	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,376	228	
LOCAL DISEASES— <i>cont.</i>			
Respiratory System—			
Laryngitis	20	3	
Bronchitis	1,465	70	
Asthma	462	3	
Pneumonia Lobular	504	164	
Pneumonia Lobar	903	327	
Pleurisy	92	9	
Empyema	18	3	
Hæmoptysis	3	—	
Emphysema	1	—	
Other Diseases	136	47	
Digestive System—			
Stomatitis	69	1	
Caries of Teeth	10	—	
Follicular Tonsilitis	41	2	
Sore Throat	55	—	
Dyspepsia	344	6	
Gastritis	26	3	
Ulcer of Stomach	18	8	
Colic	167	—	
Biliary Colic	3	—	
Constipation	169	—	
- Carried forward ...	6,882	874	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	6,882	874	
LOCAL DISEASES— <i>cont.</i>			
Digestive System— <i>cont.</i>			
Intestine Obstruction ...	46	17	
Diarrhoea	3,371	1,434	
Acute Serous Diarrhoea ...	51	29	
Hepatitis	241	19	
Abscess of Liver	49	16	
Jaundice, Catarrhal	49	9	
Cirrhosis of Liver	104	36	
Acute Yellow Atrophy of Liver.	3	2	
Ascites	236	70	
Peritonitis	51	24	
Appendicitis	18	6	
Hernia	92	2	
Hernia strangulated	58	7	
Hæmorrhoids	140	1	
Prolapse of Rectum	37	—	
Fistula in Ano	71	1	
Fissure of the Anus	6	—	
Ulceration of Rectum	4	—	
Other Diseases	81	9	
Lymphatic System—			
Lymphangitis	31	—	
Lymphadenoma	7	—	
Carried forward ...	11,628	2,556	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	11,628	2,556	
LOCAL DISEASES— <i>cont.</i>			
Lymphatic System— <i>cont.</i>			
Inflammation of Glands (Bubo).	271	—	
Splenitis	299	8	
Goitre	7	—	
Elephantiasis	30	4	
Hypertrophy of Lymph— Glands.	4	—	
Other Diseases	57	1	
Urinary System—			
Acute Nephritis	111	43	
Chronic Nephritis	93	22	
Perinephritic Abscess ...	7	—	
Stone in the Kidney... ..	7	—	
Hæmaturia	11	—	
Cystitis	124	9	
Calculus of Bladder	17	—	
Retention of Urine	57	1	
Incontinence of Urine ...	17	1	
Other Diseases	46	11	
Generative System—			
(a) Male Organs—			
Phimosis and Paraphi— mosis.	321	—	
Carried forward ...	13,107	2,656	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	13,107	2,656	
LOCAL DISEASES— <i>cont.</i>			
Generative System— <i>cont.</i>			
(a) Male Organs— <i>cont.</i>			
Ulcer of Penis	30	—	
Stricture of Urethra ...	128	—	
Urinary Fistula	73	2	
Orchitis	142	1	
Hydrocele	131	—	
Hæmatocele	27	—	
Epididymitis	18	—	
Other Diseases	14	4	
(b) Female Organs—			
Pruritus Vulvæ	5	—	
Ulceration of Vulva ...	3	—	
Leucorrhœa	35	1	
Laceration of Cervix ...	2	—	
Vesico-vaginal Fistula ...	35	—	
Prolapse of Uterus	81	—	
Metritis	45	3	
Endometritis	12	—	
Amenorrhœa	13	—	
Dysmenorrhœa	12	—	
Menorrhagia	48	—	
Carried forward ...	13,961	2,667	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	13,961	2,667	
LOCAL DISEASES— <i>cont.</i>			
Generative System— <i>cont.</i>			
(b) Female Organs— <i>cont.</i>			
Retention of Placenta ...	11	1	
Abortion	59	1	
Premature Birth	23	1	
Partus	629	16	
Postpartum Hæmorrhage	1	—	
Pregnancy	169	3	
Ovaritis	15	1	
Ovarian Cyst	12	—	
Rupture of Uterus ...	2	—	
Anterversion of Uterus ...	3	—	
Retroversion of Uterus ...	9	—	
Retroflexion of Uterus ...	8	—	
Parametritis or Pelvic Cellulitis.	8	1	
Rupture of the Perineum	14	—	
Inflammation of the Female Breast (Mastitis).	29	—	
Pelvic Peritonitis	1	—	
Ectopic Gestation... ..	1	—	
Other Diseases	57	4	
Organs of Locomotion—			
Periostitis	54	3	
Caries	60	2	
Carried forward ...	15,126	2,700	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	15,126	2,700	
LOCAL DISEASES— <i>cont.</i>			
Organs of Locomotion— <i>cont.</i>			
Necrosis	114	3	
Synovitis	77	—	
Ankylosis	14	—	
Bursitis	1	—	
Other Diseases	15	1	
Cellular Tissue—			
Cellulitis	183	14	
Abscess	1,206	34	
Gangrene	85	28	
Other Diseases	5	—	
Skin—			
Erythema	8	—	
Urticaria	19	—	
Eczema	388	1	
Psoriasis	86	—	
Herpes	16	—	
Zona	2	—	
Ulcer	6,216	82	
Boil	45	—	
Carbuncle	66	3	
Pemphigus	8	—	
Cheloid	3	1	
Carried forward ...	23,683	2,867	

CEYLON,
1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	23,683	2,867	
LOCAL DISEASES— <i>cont.</i>			
Skin— <i>cont.</i>			
Sebaceous Cyst	1	—	
Onychia	16	—	
Ringworm	50	—	
Impetigo	22	1	
Scabies	450	2	
Other Diseases	74	—	
Injuries—			
(a) General—			
Burns and Scalds	287	46	
Multiple Injury	187	17	
Privation	244	90	
Siriasis (Heat Stroke) ...	4	—	
Sunstroke (Heat Prostration).	8	—	
Other Injuries	1	—	
(b) Local—			
Contusion	1,011	3	
Wound	2,996	23	
Wound, penetrating Chest	25	5	
Wound, penetrating Abdomen.	20	8	
Wound, Gun-shot... ..	164	10	
Fracture, Simple	396	6	
Carried forward ...	29,639	3 078	

Return of Diseases and Deaths—cont.

CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	29,639	3,078	
LOCAL DISEASES—cont.			
Injuries—cont.			
(b) Local—cont.			
Fracture, Compound ...	229	20	
Fracture of Skull ...	120	28	
Fracture of Spine ...	14	5	
Sprain ...	51	—	
Dislocation... ..	35	2	
Concussion of Brain ...	41	10	
Compression of Brain ...	14	3	
Other injuries ...	97	6	
Total	30,240	3,152	
SURGICAL OPERATIONS.			
Amputations.			
Upper Extremities—			
Shoulder joint ...	2	—	
Arm	7	1	
Forearm	27	1	
Metacarpophalangeal joint...	18	—	
Digits... ..	17	—	
Lower Extremities—			
Hip joint	2	1	
Thigh... ..	7	1	
Leg	23	4	
Carried forward ...	103	8	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	103	8	
SURGICAL OPERATIONS— <i>cont.</i>			
Amputations— <i>cont.</i>			
Lower Extremities— <i>cont.</i>			
Ankle joint	2	—	
Tarsometatarsal	1	—	
Toes	9	—	
Other Operations :			
Operation for Cataract ...	47	—	
Iridectomy	18	—	
Excision of Eyeball	13	—	
Tenotomy Craniotomy ...	2	—	
Operation for strangulated... Hernia.	36	5	
" " radical cure of Hernia.	42	2	
" " Fistula in Ano	38	1	
" " Vesico-vaginal Fistula.	12	—	
" " radical cure of Hydrocele.	84	1	
" Phimosis ...	294	—	
" Elephantiasis of Scrotum.	3	—	
" Elephantiasis of Labia.	1	—	
" Hepatic Abscess	32	14	
Carried forward ...	737	31	

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	737	31	
SURGICAL OPERATIONS— <i>cont.</i>			
Other Operations— <i>cont.</i>			
Operation for Empyema ...	11	4	
" " Abscess ...	253	—	
" " Hæmorrhoids ...	32	—	
Excision of Bone	35	1	
" new growth, non-malignant.	104	1	
" malignant ...	26	2	
" Penis	21	—	
" Testicle	23	—	
" Carbuncle... ..	14	2	
" Breast	8	1	
Trephining of Skull... ..	46	16	
Lithotomy, vaginal	1	—	
Lithotriety	1	—	
Introduction of Catheter in Stricture.	28	—	
Oöphorectomy	3	1	
Laparotomy	6	2	
Ovariectomy	6	—	
Curetting of Uterus... ..	15	4	
Perinocoraphy	8	—	
Delivery of Child with Forceps.	110	13	
Carried forward ...	1,488	78	

CEYLON,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,488	78	
SURGICAL OPERATIONS— <i>cont.</i>			
Other Operations— <i>cont.</i>			
Version	20	—	
Ligation of Artery	15	1	
Removal of Bullets	6	—	
Operation for Deformity	7	—	
Other Operations	444	16	
Total Surgical Operations*	1,980	95	
Total of General Diseases...	30,720	3,055	
Total of Local Diseases, &c.	30,240	3,152	
No appreciable Diseases†	129	—	
MALFORMATIONS.			
Harelip... ..	3	—	
Lateral curvature of Spine...	5	1	
Stillbirth	3	—	
Others	2	—	
POISONS.			
Snake Bite	10	1	
Corrosive Acids... ..	13	2	
Carried forward ...	61,125	6,211	

* The total of Surgical Operations is not included in the grand total, as these cases have been returned under the different diseases of which they were admitted.

† The figures given under no appreciable diseases are to cover the admissions of parents or guardians with infant patients, which custom is prevalent in this country.

*Return of Diseases and Deaths—cont.*CEYLON,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	61,125	6,211	
POISONS— <i>cont.</i>			
Metallic Poisons ...	10	2	
Vegetable Alkaloids ...	20	2	
Nature unknown ...	16	2	
PARASITES.			
Ascaris Lumbricoides ...	508	11	
Oxyuris Vermicularis ...	1	—	
Dochmius Duodenalis or Anchylostoma Duodenalis.	1,336	273	
Filaria Medinensis (Guinea Worm.)	6	—	
Tapeworm (Tœnia Solium Oct. Medinensis.)	8	—	
Total ...	63,030	6,501	

FALKLAND
ISLANDS,
1900.

No. 7.

FALKLAND ISLANDS.

MEDICAL REPORT FOR 1900 BY THE COLONIAL SURGEON.

The health of the Colony of the Falkland Islands is eminently satisfactory. The death-rate from preventible diseases has been even lower than for some years past, there being an entire immunity from contagious or infectious diseases, that is, morbilli, variola, erythema, la-grippe, enteric, typhus, and scarlet fever. The climate is hostile to all diseases of a contagious or infectious nature.

Tropical diseases could not exist for a single hour, the climate being too cold and bracing, and the strong westerly and southerly winds, with the amount of ozone and iodine set free from kelp, would prove a sovereign prophylactic against their incursion. The presence of tuberculosis, whether attacking the mesenteric glands, joints, or in the insidious form of phthisis, is met with, which is not to be wondered at considering the number of waifs and strays that elect to take up their abode in these islands. Notwithstanding this drawback, the climate and highly nitrogenised food successfully combat them, there being an entire absence of want or destitution of any sort. The humblest labourer receives six shillings per day, and disease such as dyspepsia, or "remorse of a guilty stomach," no doubt have been superinduced by living too highly, or over-indulgence in intoxicants. The large number of cases by drowning is not surprising (which occasionally occurs) considering the low temperature of the water, the ice zone being not far distant, and the sinuosity of the kelp, which entwines itself around the arms and legs of the swimmer, and with waving motion brings him beneath the surface.

The absence of specific disease is remarkable considering the number of bluejackets and marines who, for five months each year, visit our shores. This fact speaks well for the medical officers in charge, or for the highly moral and respectable

class of men in the Royal Navy. Primary syphilis is almost unknown; occasionally a bluejacket or marine comes under my treatment in Stanley Jail suffering from secondary.

FAKLAND
ISLANDS,
1900

The usual diseases of children occur—aphthæ, varicella, urticaria, and convulsions—the latter the result of dentition or intestinal worms. The rat plague is unknown here; as a matter of fact they have diminished much within the last few years. Pediculi are rarely found, even when there is entire neglect of hygienic rules and ordinary ablutions.

The Falkland Islands, when any other statistical test is applied, are phenomenally healthy and comfortable. But for the natural decay that comes with age, and a few deaths by accident, the Falklands might almost lay claim to being the islands of the immortals. The deaths numbered 16, in a population of some 1,700; but when fatal accidents to newcomers from drowning and shooting and other exceptional causes are taken into account, the rate is whittled down half-way to zero. The rate of infant mortality is little more than one-fourth of the English average. It is impossible to find conditions more favourable to vigour of body and length of days. It would surprise many physicians in England to see how that dread malady phthisis is warded off, and, I believe, in many instances, completely buffeted by the health-giving qualities of these islands. Let it not be thought that disease and pain are unknown; a chronic intractable rheumatism is apt to twinge the back in the form of lumbago, or the knee, or elbow joints, but the bane of the islands is chronic indigestion. Pyrosis, or water brash, is continually reminding the inhabitants that they are mortal. And yet the fault is their own; the source of mischief lies in the enormous quantities of tea and coffee consumed in the strongest forms, the indigestible character of the bread they eat, and the ignorance of most women of the rudimentary laws of cooking.

I have had two cases of gangrene from frost bite. I amputated both hands in one case, and in the other through the metatarsal bones.

In the balance of loss and gain, the islanders, with a small portion of sunshine and warmth, but without phthisis or crime, are certainly happy, notwithstanding isolation from the civilised world and inclemency of the climate, and many drawbacks unknown in other Colonies.

S. HAMILTON, F.R.C.S.I., M.R.C.P.

Stanley,
Falkland Islands,

16th February, 1901.

FALKLAND
ISLANDS,
1900.

NUMBER OF INHABITANTS.
1,700.

Births during the Year.

—	Males.	Females.	Total.
Stanley	19	20	39
Darwin	5	1	6
Fox Bay	8	8	16
Total	32	29	61

Deaths.

—	Males.	Females.	Total.
Stanley	10	2	12
Darwin	1	1	2
Fox Bay	1	1	2
Total	12	4	16

INFECTIOUS AND CONTAGIOUS DISEASES.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Erysipelas	2	—	Brought by a German barque from Central America; strictly con- fined to the ship; all recovered.
Beri Beri	6	—	
Diseases of the Nerves—			
Neuritis	2	—	

Infectious and Contagious Diseases—continued.

FALKLAND
ISLANDS,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Functional Disorders of the Brain—			
Hæmeplegia 	1	—	
Syphilis—			
Secondary 	4	—	
— — — — —			
Rheumatism 	20	—	
Rheumatic Fever 	3	—	
Podagra	6	—	
Gangrene 	2	—	The result of frost bite, very severe; amputation of one hand at tarsal bones, amputation through metatarsal on the other.
— — — — —			
Amputation 	2	—	Through metatarsal joints and phalanges.

No. 8.

FALKLAND ISLANDS.

MEDICAL REPORT FOR 1901.

Stanley,

March 12th, 1902.

The health of the Colony is satisfactory in the highest degree, there being an entire absence of all diseases, either of an infectious or contagious nature; our enemy la grippe has not visited us for nearly three years. Pneumonia, pleuritis, and bronchitis, have been unknown of late. Accidents of a severe nature occasionally occur. The death rate is also very low. The health of these Islands is without parallel in His Majesty's dominions.

S. HAMILTON.

NUMBER OF INHABITANTS.

1,901.

Births during the Year.

	—	Males.	Females.	Total.
Stanley ...	...	23	21	44
Darwin ...	...	3	9	12
Fox Bay ...	...	5	7	12
Total ...	...	31	37	68

Deaths.

FALKLAND
ISLANDS,
1901.

—	Males.	Females.	Total.
Stanley	6	4	10
Darwin	1	1	2
Fox Bay	2	1	3
Total	9	6	15

INFECTIOUS AND CONTAGIOUS DISEASES.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Diseases of the Nerves—			
Neuritis	1	—	
Diseases of the Brain—			
Hemiplegia	1	—	
Syphilis—			
Primary	3	—	
Secondary	1	—	
Tertiary	1	—	
Gonorrhœa	5	—	
Delirium tremens	3	—	

FALKLAND
ISLANDS,
1901.

Infectious and Contagious Diseases—continued.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Rheumatism—			
Acute	2	—	
Chronic	12	—	
Podagra	2	—	
Diabetes—			
Mellitus	2	—	
Diseases of the Eye—			
Syphilitic iritis	1	—	
Conjunctivitis	3	—	

No. 9.

Fiji,
1900.

F I J I .

ANNUAL MEDICAL REPORT, 1900.

POPULATION:

1. The estimated population of the Colony at the end of the year amounted to 124,230 persons, and was made up of the following classes, in the proportions shown:—

Classes.	No.
Europeans and other whites	4,522
Aboriginal Fijians	97,709
East Indian immigrants (including their children born in Fiji)	15,367
Melanesian and Malayo-Polynesian immigrants	1,922
Rotumans	2,192
Half-castes and other degrees	1,308
All others	1,210
Total	124,230

These figures represent an increase of 1,557 over the foregoing year's estimated population, covered, as in the previous year, by the immigration of coolies from India, of whom 2,273 were introduced.*

The decrease in the numbers of the aboriginal race, as estimated, was 769 ; being 293 in excess of the decrease recorded for 1899.

* 405 others returned to India.

FIJI,
1900.

BIRTHS AND DEATHS.

2. The total births registered numbered 4,448, an increase of 254 as compared with the previous year. The deaths amounted to 4,926, as against 4,319 during 1899. Of arrivals in the Colony there were 1,924, and the departures from it are stated as 1,090.*

The birth-rate calculated on the *mean* population for the year was 36.03 per mille, and the death-rate, computed on the same basis, was 39.90 per mille. The former figure was 1.74, and the latter 4.50, above the corresponding results in the previous year.

BIRTHS, DEATHS, AND MARRIAGES.

3. Some further particulars regarding the births, deaths, and marriages which took place among the various racial denominations in the Colony are afforded in the following tabular statement, and have been obligingly furnished by the Registrar-General:—

Races or Nationalities.	Births.	Deaths.	Marriages.
Europeans... ..	65	28	24
Fijians	3,616	4,385	1,385
Indians	559	344	303
Polynesians	10	39	13
Rotumans	124	103	?
Half-castes	70	20	13
Others	4	7	2
Total	4,448	4,926	1,740

The most striking variance between these figures and those for the preceding year occurs in the lessened number of marriages between native Fijians—1,385 as against 1,655—while the births and deaths of Fijians both showed an increase.

The accompanying table (Return A.) expresses information in a form convenient for comparison with the returns from other Colonies, and is prepared in accordance with the suggestions circulated in the Model Medical Report form.

* The accuracy of this latter figure is reported by the Registrar-General to be questionable.

PREVALENCE OF DISEASES.

FIJI,
1900.

5. The first epidemic disease to which the attention of the Medical Department was attracted was an outbreak of jaundice. It occurred in the Ba sugar-growing district, and extended to the new settlement at Lautoka, twenty-three miles distant, with which there was frequent communication. The patients were for the most part Europeans and Indian coolies, but a small number of Fijians and half-castes were also attacked.

The epidemic, of which jaundice was the pre-eminent symptom, began in December, 1899, when the hot season had well commenced, and continued during January, 1900 (11 cases), February (18 cases), and March (three cases). In the following month it made its appearance at Lautoka, where the Europeans were the chief sufferers. Out of a total of 36 cases reported in this district, 23 were Europeans, seven Indian immigrants, four Fijians, and two half-caste Fijians.

In the majority of cases observed the illness was ushered in somewhat suddenly by giddiness, headache, sharp muscular pains, lumbar aching, and fever. In a few instances, slight prodromal malaise was complained of for some days before the onset of definite symptoms, whilst in others the altered colour of the urine was the first symptom to attract attention.

In all the cases jaundice, of varying degree, was present, the icteric tinge of the skin and conjunctivæ being accompanied by constipation, with depigmented stools, and bile-stained urine. Other symptoms noticed were great general malaise, disordered appetite and digestion, severe headache, photophobia, and tenderness, or at least discomfort, on pressure at the epigastrium. The tongue was usually moist and covered thickly with a whitish fur; it cleared slowly and evenly. Vomiting, of a bilious character, occurred early in most of the cases, and continued, on an average, for seven days; its cessation being coincident with an improvement in the general condition of the patients.

The attacks were attended by pyrexia, the temperature ranging from 100° to 103° for the first four days and then falling gradually to the normal point. The pulse usually averaged about 100, but in several cases it became abnormally slow, and one pulse-rate of 40 was recorded. In none of the Ba cases was any enlargement of the liver or gall bladder detected, and this was also true of the majority of the cases occurring at Lautoka. In one of the latter, however, the liver was observed to extend one inch below the costal margin. The quantity of urine was generally diminished, but albumen was found only in one case, the patient being a pregnant woman. Abortion did not occur in this case, nor in those of two other pregnant women who were affected with the disease. The total duration of the attack varied from 14 to 21 days, the patients being confined to bed for from seven to nine days. Relapses were observed in two

FIJI,
1900.

European cases, and were attributed to chills contracted whilst working before convalescence was complete.

No deaths were recorded from this disease, but two pregnant Indian immigrant women died from acute yellow atrophy of the liver, in the month of December, at Ba, during the early part of the jaundice epidemic.

No special cause for the outbreak was traced, but it was noticed that the drinking water, which is always somewhat opalescent in that part of the Viti Levu coast, had a quantity of very finely divided argillaceous matter in suspension, which was only partly removed by filtration. It was also recollected that Europeans who settled temporarily at the adjoining places, Vuda and Nadi, some thirty years ago, used then often to complain of suddenly vomiting after food, without experiencing any nausea to speak of.

The symptoms and general character of this epidemic cannot fail to recall the description given by Dr. Vassilieff of a series of eleven cases observed in the military hospital at St. Petersburg in 1883 (*Lancet*, 1st December, 1888), and again by Weil in 1886.

The outlying situation of the settlement where most of the cases in Europeans occurred prevented any continuous observation of them being secured by a Medical Officer, and clinical clues to the cause of the condition (which might, perhaps, have been obtained by a competent examination of the order of sequence exhibited by the various symptoms during the onset) were thus lost.

The general impression conveyed was that the outbreak had been due to either (i) a specific infective toxæmia, or else (ii) to inflammation of the gastric mucous membrane, extending into the duodenum, and occluding the orifice or canal of the bile duct, such inflammation being caused by the ingestion of some special article of diet. Food preserved in tins was one suggestion, while the inclusion of a poisonous seed harvested with wheat and milled with the flour used (not *lolium*) came also under suspicion. The water, which came from several different sources, had probably nothing to do with it.

Later in the year some cases of jaundice were noticed following attacks of dengue, but others, in a different district, occurred about the same time in which no dengue or other febrile attack was antecedent to the premonitory pyrexia of the jaundice itself.

Influenza and Dengue.

6. The former pest appears to have taken up a permanent habitat in the Colony, having prevailed, more or less, either in an epidemic form or in single occasional instances ever since its advent in 1891.

It began to attract special attention again in the second quarter of the year under review, when cases of the cerebro-spinal type, many of them with curiously low temperatures and

marked neuralgic pains, chiefly sciatic, came under observation. A little later on some of them resembled dengue, and rashes were of more frequent occurrence than is usual in influenza. As the year advanced the diagnosis of dengue was confirmed, but there were undoubted cases of influenza as well.

Later on still, dengue spread freely among the natives, as well as Europeans, and there were also some cases, but comparatively few, and mild in nature, among the Indian immigrants.

Neither of these diseases appears to have caused many deaths, except in the large island of Vanua Levu.

Choleraic Diarrhæa.

7. An affection of this class, which has of late years attacked both children and adults, but principally the former, again occurred in the months of February and March, in the sugar districts, and proved no less difficult to treat successfully than to account for. The exciting cause or causes remain still obscure, but it is evident that its development is favoured by the meteorological conditions usual in the tropical summer season.

Whooping-cough.

8. A good many deaths were reported from this disease, which had already begun to prevail epidemically in the latter part of 1899, but the information supplied from native sources regarding it is lacking in definition.

9. There were no other occurrences of an epidemic nature to require mention, but it may be worth while to record the introduction of *Dracunculus medinensis* in the persons of Indian coolies, who arrived from Calcutta, to the number of six cases at least. This parasite had not been seen in Fiji more than twice before, then also in newly arrived Indian immigrants.

Cerebro-spinal Meningitis.

10. Cerebro-spinal meningitis claimed some victims among the incoming Indian immigrants this year, having broken out in the depôt at Calcutta prior to the embarkation of the first ship's complement.

Cases occurred in each of the four ships during their voyage to Fiji, about two out of three proving fatal, but only two in all developed after the coolies disembarked in the Colony, and the disease did not extend to other communities or races.

Enteric Fever.

11. Five cases were admitted to the Colonial Hospital, of whom three were Europeans and two Indian immigrants. This disease maintains a scattered existence in the Colony, but has shown no tendency to develop into epidemics. A few other cases occurred in the Provinces, among the same classes. It is rarely met with in the Fijian aboriginal, but its diagnosis in them has been definitely verified from time to time. Its nature as a specific disease is unknown to the natives themselves.

12. The subjoined table represents the monthly numerical fluctuations of the admissions to the Colonial Hospital :—

Nationality.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Whole Year.
Europeans ...	5	7	6	5	3	13	4	10	9	8	8	13	—
Fijians...	77	67	56	41	67	48	55	54	43	60	66	39	—
Indians...	38	41	8	5	5	4	4	11	3	2	8	3	—
Melanesians ...	4	1	42	42	35	35	50	41	38	32	29	28	—
All others ...	8	4	1	1	2	8	7	4	8	—	1	5	—
Monthly Total	132	120	113	94	112	108	120	120	101	102	112	88	1,322
Quarterly ...	365			314			341			302			

It does not afford this year any striking indication of the seasonal incidence of disease.

13. Of the 1,322 admissions to the Colonial Hospital, cases of general diseases numbered 728, local diseases 579. The former included ten cases of primary frambœsia, 103 of secondary frambœsia, and 338 in the tertiary stages. Of these, four primary cases occurred in Fijians, and six in Indians. One secondary case was a European, none Fijian, and 102 were Indians. Of the tertiary cases, 316 were Fijians, 20 Indians, and two Europeans. These figures illustrate the unwillingness of the Fijian race to apply for treatment in early yaws, for they are ignorant of the tertiary consequences of that disease as really forming one of its stages.

Only 13 cases of syphilis were received. Of the inherited form, six were Indian infants and one a white child. Six adult Indians suffered from secondary syphilis and one from tertiary. No case of a syphilitic Fijian was seen.

There were 75 cases of dysentery and two of malarial fever (imported).

Of the local diseases, 34 belonged to the nervous system, 34 to the eye, nine to the ear, four to the nose, eight to the circulatory system, 108 to the respiratory, 82 to the digestive, 62 to the lymphatic (filarial), two to the thyroid body, six to the urinary system, 44 to the generative, 44 to the organs of locomotion, 78 to the connective tissue, and 76 to the skin.

14. Details of the diseases treated, surgical operations performed, and an analysis of the causes of death, in connection with the Colonial Hospital, are, as usual, afforded in the Blue Book of Fiji for the year.

15. A table is next presented in which are shown the number of admissions of indentured Indian immigrants to Estate Hospitals, month by month, through the year. It constitutes a summary of the Nosological Return (C.), appended, in which the diseases as well as the divisional headings are specified. New coolies arrived from India somewhat later than customary this year, in four sailing ships, to the number of 2,273:—

Admissions of Indentured Indian Immigrants to Estate Hospitals.

Division.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Whole Year.
General Diseases ...	142	147	132	126	164	191	209	296	258	245	213	187	2,310
Local Diseases ...	334	345	306	272	301	305	267	390	369	433	470	403	4,195
General Injuries ...	—	2	—	—	—	—	—	—	—	9	—	—	11
Local Injuries ...	52	40	23	34	22	40	58	47	57	35	29	59	496
Other Conditions ...	6	13	10	—	1	2	7	—	9	3	—	—	51
Total	534	547	471	432	488	538	541	733	693	725	712	649	7,063

Diseases and Causes of Death among Indian Coolies.

16. Details of the diseases and causes of death which occurred among indentured Indian immigrants on sugar estates and other plantations in the various Medical Districts are furnished in the Nosological Return (C.) already alluded to.

17. The relative mortality in different seasons presented no noteworthy features. The seasonal mortality among Fijian aboriginals, as shown by the native returns, was:—

First quarter	1,054
Second quarter	1,280
Third quarter	1,176
Fourth quarter	875

There is nothing, on the surface, to account for this disparity.

METEOROLOGICAL CONDITIONS.

18. The meteorological conditions of the islands, as represented by the observations officially taken and recorded at Suva, are expressed in the accompanying Return (B.).

Local deviations from this standard, depending upon elevation, distance from the sea, and aspect, are considerable. The north-west monsoon did not make itself felt in Fiji this year, and there were no cyclones within the Group, although two occurred sufficiently near its outskirts to cause a marked barometrical depression at all the observation stations—the one in February and the other in March. Although 90 inches of rain fell during the twelve months, the amount from September to December, inclusive, was only 13·33 inches, thus the latter portion of the year was locally regarded as a period of drought, and came very near having a serious effect upon the native food crops in some Provinces.

19. A special anxiety, in connection with the maintenance of sanitation in the Colony, arose at the beginning of the year, in the shape of a threatened invasion by bubonic plague. This disease had already been smouldering in the French settlements at New Caledonia, towards the close of 1899, but its presence there was not made public at that time, and Honolulu became another focus of infection about the same period.

It was not until the end of January, 1900, that the first undoubted case manifested itself in Australia, at Sydney, which port being the principal seat of trade with Fiji it became

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eminently necessary to take immediate and practical steps for the preventing the disease from gaining an entry into this Colony.

20. The precautions adopted may be summed up as follows:—

All vessels arriving from plague-infected ports were refused pratique until after the lapse of twelve days from their port of departure. They were first subjected to fumigation by sulphur dioxide on arrival, their bilges and tanks were pumped out and disinfected, and their crews and passengers were medically examined on the thirteenth day, and, if found healthy, forthwith liberated. Such vessels were prohibited from coming alongside a pier or wharf, and were required to discharge or receive their cargoes, coal, water, and stores in the stream, by daylight only, by means of specially constructed lighters, which were themselves fumigated before being allowed to return to the shore. Metal discs were invariably placed on all warps and lines made fast to vessels from plague ports, by which rats were intercepted if they attempted to pass down such ropes.

No vessels or lighters were allowed to remain alongside a ship from a plague port at night, whether before or after granting her pratique, for any purpose whatever.

The importation of animals susceptible of plague, and of fodder, was prohibited from all infected ports or districts. A summary* of the Regulations enacted is appended.

21. A crusade was established on shore, not only in the ports of the Colony, but in all the European settlements, against rats and mice, of which there are several species, imported and indigenous. Poison was found to avail but little, traps of the old wire cage pattern were useless, new pattern more successful, but the common cheap "Erie" wire-spring trap on a wood base proved the most destructive.

A series of supplies of Haffkine's prophylactic were obtained from Bombay, and distributed to the Government Medical Officers at the chief points of probable access in the Colony, such as the sugar mills.

22. An isolation camp was constructed in the neighbourhood of Suva for the reception of any cases of plague which might occur in the town, consisting of two wards for Europeans, male and female, a day-room, two separate buildings of native materials and construction for native patients, male and female, a lodge for two European nurses, two kitchens, a store-room, two huts for native wardsmen and attendants, and necessary offices. The site selected for the camp was one mile from the town, on a convenient ledge of Government land bordering the estuary of Wulu Bay, and shut off at the back by a high cliff; access being

* Not printed.

had only by two paths, made for the purpose, and susceptible of being easily guarded by constables. Water was laid on in iron pipes, and telephonic connection was held in readiness for communication with the Colonial Hospital, which stands on the opposite side of the estuary, about half a mile distant.

A call for volunteers to attend to plague cases was loyally responded to by the nurses of the Colonial Hospital.

23. The quarantine island of Makuluva was also held available to receive plague cases which might arrive oversea, and accommodation for eight European patients, in four separate buildings, was added to the natives' wards already existing there.

24. Measures were taken for ensuring a thorough cleansing of the surface in and around the towns of Suva and Levuka, and at all the sugar mills, and for the destruction by fire of all accumulations of rubbish. The Queen's Wharf was freshly tarred.

An additional steam disinfector, of the Reek pattern and portable type, was procured from Copenhagen, and has worked satisfactorily.

25. Special steps were taken to prevent the landing of rats or other infective material in straw packing within crates and merchandise of that character. These were all stopped by the boarding officer on duty for inspection by the Health Officer, who decided, in some cases, to cause the goods to be unpacked on board (the consignee or his agent being notified to be present), and the packing burned there and then; in others to be submerged for an hour, or longer; and in others to be refumigated with SO_2 .

26. Instructions setting forth the general principles to be adopted for the exclusion of plague, and especially for the destruction of rats, were printed and distributed throughout the Colony, and the more intelligent and responsible residents for the most part cheerfully applied themselves to instruct their dependents and to carry out the most practical and practicable measures indicated.

* * * * *

28. Fortunately, however, in the end—so far as the year 1900 was concerned—Fiji escaped infection by plague, and, the disease disappearing from Sydney in August, and persisting only in Brisbane and Fremantle (with which ports direct communication is rare), the danger to a considerable extent passed, though vigilance was not relaxed.

VACCINATION.

29. The total number of vaccinations (subjects) performed was 1,755, of which 1,313 were returned as successful, 33 as doubtful, and 345 as unsuccessful, while in 64 cases the subjects were

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absent from inspection. Of the successful cases, 1,066 were primary, and 247 secondary vaccinations.

30. No arm to arm vaccination was done. Some of the lymph was procured from England by monthly instalments, but the length of time occupied in its transit (five to seven weeks) since the discontinuance of the direct Vancouver mail service with the Colony, impaired its efficiency to an extent which was held to justify its abandonment in favour of New Zealand lymph, and the latter only is now employed.

31. The progress of vaccination was much interrupted during the middle portion of the year by the prevalence of whooping-cough in several Provinces, and later by dengue, more especially in Colo West and Vanua Levu.

B. GLANVILL CORNEY,
Chief Medical Officer,
Fiji.

RETURN A.

STATISTICS of POPULATION, 1900.

—		Europeans and other Whites.	Aboriginal Fijians.	Rotumans.	Melanesians.	East Indians.	Mixed and Miscellaneous	Total.
Number of Inhabitants on 31st Dec., 1899		4,373	98,478	2,171	1,961	13,282	2,408	122,673
"	Births	65	3,616	124	10	559	74	4,448
"	Deaths	28	4,385	103	39	344	27	4,926
"	Immigrants arrived	695	14	—	2	2,273	107	3,091
"	" departed	583	2	—	12	415	44	1,056
"	Inhabitants at end of 1900 ...	4,522	97,709	2,192	1,922	15,367	2,518	124,230
Increase	149	—	21	—	2,085	110	2,365
Decrease	—	769	—	39	—	—	808
Estimated Net Increase ...		1,557						

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RETURN B. METEOROLOGICAL RETURN for the YEAR 1900.

Months.	Temperature.					Rainfall.		Winds.		Remarks.	
	Solar Maximum.	Minimum on Grass.	Mean daily Shade Maximum.	Mean daily Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity : Saturation=100°.	General Direction.		Average Force.
January ...	Not recorded.	Not recorded.	84.5	72.2	{ 90.1 71	{ 80	14.36	75	E.S.E.	3	
February ...			86.4	76.2	{ 93 74	{ 82	12.18	78	E.S.E.	2	
March ...			84.9	75.0	{ 91.8 71.5	{ 81	14.53	78	E.	2	
April ...			83.9	72.1	{ 87.2 69.2	{ 79	8.64	78	E.S.E.	2	
May ...			81.8	68.8	{ 86.6 63	{ 75	2.43	73	S.E.	2	
June ...			81.0	68.8	{ 86.5 59.9	{ 75	7.80	78	S.E.	2	
July ...			81.2	69.1	{ 86.4 62	{ 75	4.15	78	E.	2	

Not recorded.

Not recorded.

August	...	Not recorded.	80.9	68.6 { 86.1 } 61.1 }	76 { 86.1 } 61.1 }	12.45	78	E.N.E.	2
September	...	Not recorded.	82.1	68.2 { 86.1 } 61.3 }	76 { 86.1 } 61.3 }	.99	70	E.	2
October	...	Not recorded.	83.0	71.6 { 93.6 } 63.6 }	78 { 93.6 } 63.6 }	3.79	73	E.S.E.	2½
November	...	Not recorded.	84.5	72.9 { 91.1 } 66.1 }	80 { 91.1 } 66.1 }	4.85	72	E.S.E.	2
December	...	Not recorded.	85.2	71.4 { 93.2 } 67 }	83 { 93.2 } 67 }	3.70	63	S.E.	2
Means, &c...	—	—	83.3	71.1 { 59.9 } 93.2 }	78 { 59.9 } 93.2 }	89.87	74	E.S.E.	2½

Highest corrected reading of barometer, 30.197, on May 4th.
 Lowest corrected reading of barometer, 29.336, on March 11th.
 Highest temperature in shade, 93.2°, on December 12th.
 Lowest temperature in shade, 59.9°, on June 20th.
 Greatest rainfall in one day, 6.35 inches, on August 2nd.
 Total rainfall during the year, 89.87 inches.
 Number of days on which rain fell, 234.
 Thunderstorms, 14.
 Cyclonic Storms, Nil.

The observations were taken at Suva, 9 feet above the mean sea level, at 9 a.m.

C.

NOSOLOGICAL RETURN.
RETURN of DISEASES and DEATHS in 1900.

1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.—			
Varicella... ..	2	—	
Dengue	7	—	
Influenza	401	—	
Pertussis... ..	34	—	
Parotitis	5	—	
Cerebro-spinal Fever	1	1	
Febricula	503	—	
Choleraic Diarrhoea	30	5	
Dysentery	177	9	
Malarial Fever—			
(a.) Intermittent	128	—	
Malarial Cachexia	—	1	
Tetanus	3	3	
Tubercle... ..	13	—	
Yaws	192	—	
Syphilis—			
(a.) Primary... ..	21	—	
(b.) Secondary	103	—	
Tertiary	6	—	
(c.) Inherited	29	9	
Gonorrhoea	206	—	
Rheumatism	146	—	
New Growth, non-malignant ...	2	—	
Carried forward ...	2,009	28	

Return of Diseases and Deaths—cont.

Fiji,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,009	28	
GENERAL DISEASES—cont.			
New Growth, malignant ...	2	2	
Anæmia... 	230	9	
Debility	69	11	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Diseases of the Nerves—			
Meningitis	2	2	
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	1	—	
Landry's Paralysis	1	1	
Neuralgia	10	—	
Hysteria	1	—	
Convulsions	9	5	
Sub-section 3.			
Mental Diseases—			
Mania	1	—	
Dementia	4	—	
Diseases of the Eye	1,503	—	
" " Ear	8	—	
" " Nose	6	—	
Carried forward ...	3,856	58	

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1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3,856	58	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Circulatory System	1	1	
" " Respiratory System	298	—	
" " Digestive System	970	45	
Acute Yellow Atrophy of Liver	3	3	
Diseases of the Lymphatic System	15	—	
" " Urinary System	7	5	
" " Generative System—			
Male Organs	73	—	
Female " "	50	1	
Premature Birth	—	5	
Vesical Calculus	1	—	
Diseases of the Organs of Locomotion.	6	—	
" " Cellular Tissue	201	—	
" " Skin.....	1,024	—	
Total... ..	6,505	118	
Injuries, General	11	11	
" Local	496	1	
Poisons	1	—	
Parasites... ..	50	—	
Cause of death unknown ...	—	6	
Total	558	18	

No. 10.

GRENADA,
1900.

GRENADA.

RETURN of DISEASES and DEATHS in 1900 at the
COLONY HOSPITAL.

Diseases,	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza	29	2	
Dysentery	8	1	
Malarial Fever— (a.) Intermittent—Tertian...	2	—	
(b.) Remittent	79	1	
Pyæmia	1	—	
Septicæmia	1	1	
Tetanus	2	2	
Tubercle	29	11	
Leprosy— (a.) Tubercular	1	—	
(b.) Anæsthetic			
Syphilis— (a.) Primary	17	1	
(b.) Secondary			
Gonorrhœa	3	—	
Bubo	3	—	
Delirium Tremens	1	—	
Rheumatism	39	—	
Carried forward ...	215	19	

GRENADA,
1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	215	19	
GENERAL DISEASES— <i>cont.</i>			
New Growth, non-malignant ...	2	—	} Others returned under diseases of Regions.
New Growth, malignant ...	6	—	
Anæmia	42	—	
Marasmus	2	2	
Senility	2	1	
Total	269	22	
LOCAL DISEASES.			
THE NERVOUS SYSTEM.			
Sub-section i.			
Meningitis, cerebro-spinal ...	1	—	
Hydrocephalus	1	—	
Congestion of Brain	1	1	
Sub-section ii.			
Paralysis Agitans	1	—	
Paraplegia	1	—	
Hemiplegia	5	—	
Epilepsy	3	—	
Neuralgia	1	—	
Myalgia	1	—	
Hysteria	4	—	
Neurasthenia	1	—	
Sub-section iii.			
Mania	3	—	
Melancholia	1	—	
Total	24	1	

*Return of Diseases and Deaths—cont.*GRENADA,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—Eye.			
Diseases of Conjunctiva—Conjunctivitis.	5	—	
„ Cornea—Keratitis	3	—	
„ Iris—Iritis ...	5	—	
„ Lens—Cataract ...	4	—	
„ The Globe—Pan Ophthalmitis	4	—	
„ Cystic Tumour.	1	—	
„ The Eyelids—Blepharitis ...	2	—	
Total	24	—	
Class—Ear.			
Disease of External Meatus—Inflammation... ..	1	—	
Total	1	—	
Class—Nose.			
Rhinitis	1	—	
Polypus	1	—	
Ulcer	1	—	
Total	3	—	
Class—Circulatory System.			
Diseases of the Valves of the Heart—			
(1) Aortic—Stenosis ...	1	—	
(2) Mitral—Rejurgitation ...	28	10	
Diseases of Muscular Substance—			
Dilatation	9	2	
Aneurism	1	—	
Total	39	12	

GRENADA,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—Respiratory System			
Diseases of the Bronchi—			
Bronchitis	13	2	
Diseases of the Lungs—			
Pneumonia	14	6	
Emphysema	1	—	
Diseases of the Pleura—			
Pleurisy	1	1	
Pleuro-pneumonia	1	—	
Total	30	9	
Class—Digestive System.			
Diseases of Palate and Fauces—			
Tonsilitis	1	—	
Hypertrophy of Tonsil ...	1	—	
Ulcer of Throat	6	—	
Diseases of the Oesophagus—			
Stricture	1	—	
Diseases of the Stomach—			
Gastritis	23	—	
Gastro-enteritis	2	—	
Gastric-ulcer	4	1	
Gastric carcinoma	1	1	
Carried forward ...	39	2	

*Return of Diseases and Deaths—cont.*GRENADA,
1900

Diseases.	Yearly Total,		Remarks.
	Cases.	Deaths.	
Brought forward ...	39	2	
LOCAL DISEASES— <i>cont.</i>			
Class—Digestive System— <i>cont.</i>			
Diseases of Liver—			
Hepatic congestion ...	1	—	
„ cirrhosis ...	4	—	
„ carcinoma ...	2	—	
Hepatitis ...	4	—	
Disease of the Pancreas—			
Carcinoma ...	1	1	
Diseases of the Intestines—			
Hernia, Inguinal ...	2	—	
Diarrhoea ...	6	—	
Colic ...	1	—	
Colitis ...	1	—	
Obstruction ...	2	1	
Diseases of Rectum and Anus—			
Stricture ...	1	—	
Fistula ...	1	1	
Prolapsus ...	2	—	
Diseases of Peritoneum—			
Peritonitis ...	3	—	
Ascites ...	7	4	
Total ...	77	9	

GRENADA,
1900.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—Lymphatic System.			
Lymphangitis	1	—	
Adenitis	6	—	
Total	7	—	
Class—Urinary System.			
Diseases of Kidneys—			
Nephritis	8	3	
Hæmaturia	3	—	
Diseases of Bladder—			
Cystitis	6	—	
Retention of Urine	4	—	
Total	21	3	
Class—Generative System.			
Male Organs—			
Diseases of the Urethra—			
Stricture	8	—	
Extravasation of Urine ...	2	1	
Urinary Fistula	2	—	
„ Abscess	2	—	
Diseases of the Penis—			
Phimosis	2	—	
Epithelioma	2	—	
Ulcer	1	—	
Carried forward ...	19	1	

*Return of Diseases and Deaths—cont.*GRENADA,
1900.

Diseases.	Yearly Total,		Remarks.
	Cases.	Deaths.	
Brought forward ...	19	1	
LOCAL DISEASES— <i>cont.</i>			
Class—Generative System— <i>cont.</i>			
Male Organs— <i>cont.</i>			
Diseases of the Tunica Vaginalis—			
Hydrocele	2	—	
Diseases of the Testicle—			
Orchitis	1	—	
Epididymitis	4	—	
Hernia	1	—	
Female Organs—			
Diseases of the Uterus and Cervix—			
Endometritis	4	—	
Menorrhagia	2	—	
Fibroids	2	—	
Carcinoma	2	—	
Ulcer of Os	2	—	
Displacements—			
Retroflexion	1	—	
Diseases of the Vagina—			
Leucorrhœa	2		
Ulcers	10	1	
Diseases functional and symptomatic—			
Amenorrhœa	1	—	
Carried forward ...	53	2	

GRENADA,
1900.*Return of Diseases and Deaths—cont.*

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	53	2	
LOCAL DISEASES— <i>cont.</i>			
Class—Generative System— <i>cont.</i>			
Female Organs— <i>cont.</i>			
Diseases connected with Pregnancy—			
Abortion	1	—	
Diseases connected with Part- urition—			
Parturition	2	1	
Diseases of the Female Breast—			
Schirrus	3	—	
Total	59	3	
Class—Organs of Locomotion.			
Disease of Bones—			
Periostitis	3	—	
Necrosis	10	1	
Diseases of the Joints—			
Synovitis	1	—	
Ankylosis	2	—	
Diseases of the Spine—			
Caries	1	—	
Diseases of the Tendons—			
Ganglian	2	—	
Total	19	1	
Class—Cellular Tissue.			
Cellulitis... ..	3	—	
Abcess	16	2	
Total	19	2	

Return of Diseases and Deaths—cont.

GRENADA,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—The Skin.			
Acne Rosaceæ	1	—	
Eczema	4	—	
Psoriasis	1	—	
Ulcer	190	1	
Ichthyosis	1	—	
Carbuncle	1	—	
Gangrene	7	1	
Lupus	1	—	
Epithelioma	1	—	
Hæmatoma	1	—	
Total	208	2	
Class—Injuries.			
Injuries General—			
Contusions	4	—	
Injuries Local—			
Fracture of Femur	2	—	
" Humerus	1	—	
" Potts	1	—	
" Spine	1	—	
" Tarsal Bone	1	—	
" Temporal and Parietal.	1	—	
" Tibia and Fibula	1	—	
Carried Forward	12	—	

GRENADA,
1900.*Return of Diseases and Deaths—cont.*

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	12	—	
LOCAL DISEASES— <i>cont.</i>			
Class Injuries— <i>cont.</i>			
Wound—			
Incised	6	—	
Contused	1	—	
Lacerated	2	—	
Punctured	1	—	
Gunshot	2	—	Sciatic nerve injured in one.
Of Spinal Cord—Punctured ...	1	1	
Of Head—Incised	2	—	
Rupture of Rectum and Bladder	1	1	
Destruction of Foot	1	—	
Bite by Hog	1	—	
Total	30	2	
Malformations—			
Cripple	1	—	
Parasites —			
Ankylostoma	1	—	
No appreciable Disease—			
Pregnancy	1	—	
Born in Hospital	2	—	
For observation	3	—	
Infant with mother	12	—	
Total	18	—	

No. 11. |

GRENADA.

MEDICAL REPORT FOR 1901.

GRENADA,
1901.

The estimated population of the Colony at the end of the year, it appears from statistics kindly supplied by the Registrar-General, was 64,288.

The births during the year were 2,779, giving a birth rate of 43.22 per 1,000.

The death rate was 22.47 per 1,000, and the deaths numbered 1,445.

Health of the Colony.

The feature of the year under review was an epidemic of dysentery, which started in the latter part of June and continued over a period of five months.

The disease made its appearance on the advent of the rains after a severe and prolonged drought, and rapidly assumed an epidemic form. It presented several distinct types from severe attacks ending fatally in a few days to non-febrile atypical forms.

The symptoms common to all were fever, tenesmus, and frequent evacuations of blood and mucus.

The initial fever in some cases was mild; in others it lasted for days.

No age was exempt, infants at the breast suffering as severely as adults.

The typical lesions of dysentery were found after death.

The epidemic having started on the advent of the rains after a prolonged drought, the pollution of streams from surface drainage is generally admitted to have been the primary cause of its origin.

GRENADA,
1901.

The distribution of the disease was remarkable. Persons living in houses and localities where the purity of the water could not be questioned became infected and suffered as severely as those who were living under the most insanitary conditions.

The disease being undoubtedly infective, it can be readily understood how it was disseminated when it occurred in houses where there was not the slightest attention paid to disposing of the dysentery products under sanitary restrictions.

The disease was of a virulent type and claimed for its victims a large percentage of the number attacked.

The ordinary endemic diseases of the Colony and their prevalence are no doubt largely influenced by meteorological conditions. The dry season, extending from the month of February to the end of May, is recognised as the healthiest period of the year, and during these months the mortality drops to half what it is during the remaining half of the year.

Diseases of the respiratory organs and the alimentary tract attain their maximum during the wet months, and children being susceptible agents, owing to improper feeding and the insanitary conditions under which they live, suffer severely and swell the annual mortality some years to an alarming extent. It is also during these months that malarial fevers are so pronounced. These fevers, however, are generally within the limits of swamps and other localities where the malarial mosquito can find the necessary requirements for its development.

Sanitation.

The sanitary condition of the chief towns was fairly good. The town of St. George's, with a population of over 5,000 spread over a small area, requires better attention paid to sanitary matters than what at present obtains.

The Local Health Authorities, I fear, do not bestow on sanitation that close supervision it requires. The frequent flushing of drains and the prompt removal of all sorts of refuse accumulating in the neighbourhood of dwellings should receive constant attention, as well as the disposal of night soil under a more improved system than what at present exists.

The overcrowding in houses which prevails to an undesirable extent not only in towns but in the villages should also receive the attention of the Health Authorities, as such conditions are not one of the smallest of factors in causing and disseminating disease.

The water supply of the Colony is generally good, except in the Island of Carriacou and low-lying localities along the seaboard, where it becomes a scarce commodity in the dry season. There are only two of the chief towns supplied with a water service from properly constructed water works.

*Vaccination.*GRENADA
1901.

Although vaccination is compulsory in the Colony, I am confident from the very irregular manner in which it is carried out that not one half of the children born are vaccinated. Such unsatisfactory results must annually swell the very large unprotected population of the Colony, and should small-pox ever appear in an epidemic form, a heavy penalty will have to be paid for the indifference shown by all classes of the community to such a necessary precaution.

The number of successful vaccinations performed during the year throughout the Colony was 486.

P. F. MACLEOD,

Acting Colonial Surgeon.

RETURN of DISEASES and DEATHS in 1901, at the following INSTITUTIONS :—COLONIAL, YAWS, ST. ANDREWS, and CARRIACOU HOSPITALS.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
I.—GENERAL DISEASES.			
Influenza 	1	1	
Dysentery 	64	13	
Malarial Fever—			
Remittent 	98	2	
Tubercle... 	18	5	
Tetanus	1	—	
Leprosy—			
Tubercular 	1	1	
Yaws 	157	3	
Carried forward 	340	25	

GRENADA,
1901.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	340	25	
GENERAL DISEASES— <i>cont.</i>			
Syphilis—			
(a.) Primary ...	39	2	}
(b.) Secondary ...			
Gonorrhœa ...	12	—	
Bubo ...	5	—	
Rheumatism ...	42	—	
New Growth, non-malignant ...	8	—	
„ malignant ...	2	—	
Anæmia ...	44	—	
Diabetes mellitus ...	2	—	
Marasmus ...	2	1	
Total ...	496	28	
II.—LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Neuritis ...	2	—	
Meningitis spinal ...	1	—	
Hydrocephalus ...	1	1	
Sub-section 2.			
Apoplexy ...	1	—	
Hemiplegia ...	3	2	
Carried forward ...	8	3	

Return of Diseases and Deaths—cont.

GRENADA,
1901.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	8	3	
LOCAL DISEASES—cont.			
Sub-section 2—cont.			
Paralysis... ..	4	1	
Paraplegia	4	1	
Chorea	1	—	
Epilepsy	9	—	
Pleurodynia	2	—	
Neuralgia	4	—	
Hysteria	6	—	
Sub-section 3.			
Melancholia	3	1	
Mania	1	—	
Total	42	5	
Class—Eye.			
Diseases of Conjunctiva—			
Conjunctivitis	7	—	
Cyst	1	—	
Diseases of Cornea—			
Keratitis	4	—	
Ulcer	4	—	
Diseases of Iris—			
Iritis	12	—	
Carried forward ...	28	—	

GRENADA,
1901

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	23	—	
LOCAL DISEASES— <i>cont.</i>			
Class Eye— <i>cont.</i>			
Disease of Lens—			
Cataract	5	—	
Diseases of the Globe—			
Ophthalmitis	3	—	
Diseases of the Choroid and			
Ciliary Body—			
Hypopyon	3	—	
Total	39	—	
Class—Ear.			
Disease of External Meatus—			
Otorrhoea	5	—	
Total	5	—	
Class—Nose.			
Polypus	2	—	
Ethmoiditis	1	—	
Total	3	—	
Class—Circulatory System.			
Diseases of the Valves of the			
heart—			
(1) Aortic—			
Regurgitation	1	—	
(2) Mitral—			
Regurgitation	48	9	
Diseases of the Muscular			
Substance—			
Dilatation	5	1	
Disease of the Arteries—			
Sub-clavian Aneurism ...	1	—	
Total	55	10	

*Return of Diseases and Deaths—cont.*GRENADA,
1901.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES—cont.			
Class—Respiratory System.			
Diseases of the Bronchi—			
Bronchitis	16	2	
Diseases of the Lungs—			
Pneumonia	3	2	
Emphysema	1	—	
Diseases of the Pleura—			
Pleurisy	1	1	
Total	21	5	
Class—Digestive System.			
Diseases of the Mouth—Tongue.			
Epithelioma	4	—	
Diseases of the Palate and			
Fauces—			
Tonsillitis	4	1	
Tonsillar Abscess	1	—	
Ulcer of Throat	1	—	
Diseases of the Stomach—			
Gastritis	26	4	
Gastralgia	1	—	
Hæmatemesis	1	—	
Diseases of Liver—			
Hepatic Congestion	2	—	
„ Cirrhosis	3	—	
„ Carcinoma	1	—	
Hepatitis	1	—	
Gall Stones	1	—	
Carried forward ...	46	5	

GRENADA,
1901.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	46	5	
LOCAL DISEASES— <i>cont.</i>			
Class—Digestive System— <i>cont.</i>			
Diseases of the Intestines—			
Hernia, Inguinal	3	1	
Diarrhoea	8	—	
Colic	3	—	
Obstruction	2	—	
Perityphlitis	2	—	
Diseases of Rectum and Anus—			
Fistula	1	—	
Prolapsus	1	—	
Hæmorrhoids... ..	1	—	
Abscess	2	—	
Polypus	1	—	
Ulceration	1	—	
Diseases of Peritoneum—			
Peritonitis	1	1	
Total	72	7	
Class—Lymphatic System.			
Lymphangitis	1	—	
Adenitis	4	—	
Diseases of the Spleen—			
Hypertrophy	1	—	
Total	6	—	

*Return of Diseases and Deaths—cont.*GRENADA,
1901.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—Urinary System.			
Diseases of Kidneys—			
Nephritis	15	2	
Haematuria	5	—	
Perinephritic Abscess ...	1	—	
Diseases of Bladder—			
Cystitis	2	—	
Retention of Urine	5	—	
Total	28	2	
Class—Generative System.			
Male Organs.			
Diseases of the Urethra—			
Stricture	14	1	
Urinary Fistula	4	—	
„ Abscess	3	—	
Diseases of the Penis—			
Phimosi	2	—	
Paraphimosis	2	—	
Epithelioma	2	—	
Warts	2	—	
Diseases of the Prostate—			
Prostatitis	2	—	
Abscess	1	—	
Diseases of the Testicle—			
Epididymitis	3	—	
Orchitis	1	—	
Carried forward ...	36	1	

GRENADA,
1901

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	36	1	
LOCAL DISEASES— <i>cont.</i>			
Class—Generative System— <i>cont.</i>			
Male Organs— <i>cont.</i>			
Diseases of the Tunica Vaginalis—			
Hydrocele	2	—	
Female Organs.			
Diseases of the Uterus and Cervix—			
Endometritis	9	—	
Menorrhagia	8	—	
Metritis	10	—	
Fibroids	9	—	
Carcinoma	2	—	
Ulcer of Os	4	—	
Polypus	1	—	
Diseases of the Vulva and Vagina—			
Vaginitis	4	—	
Ulcer of Vagina	2	—	
Warts	1	—	
Fibrema of Vulva	1	—	
Diseases of the Breast—			
Inflammation... ..	1	—	
Abscess	3	—	
Diseases connected with Pregnancy—			
Abortion	1	—	
Carried forward ...	94	1	

*Return of Diseases and Deaths—cont.*GRENADA,
1901.
—

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	94	1	
LOCAL DISEASES— <i>cont.</i>			
Class—Generative System— <i>cont.</i>			
Female Organs— <i>cont.</i>			
Diseases connected with Partu- rition—			
Rupture of Perineum ...	1	—	
Pelvic Cellulitis ...	1	—	
Phlegmasia Dolens ...	2	—	
Diseases of the Ovary—			
Tumours ...	1	—	
Total ...	99	1	
Class—Organs of Locomotion.			
Diseases of Bones—			
Periostitis ...	3	1	
Necrosis ...	10	—	
Diseases of the Joints—			
Synovitis ...	10	—	
Diseases of the Tendons—			
Ganglion ...	1	—	
Total ...	24	1	
Class—Cellular Tissues.			
Cellulitis ...	8	1	
Abcess... ...	20	—	
Total ...	28	1	

GRENADA,
1901.

Return of Diseases and Deaths—cont.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
LOCAL DISEASES— <i>cont.</i>			
Class—Skin			
Acne	1	—	
Eczema	4	—	
Ulcer	241	2	
Gangrene	11	4	
Elephantiasis	2	1	
Herpes Zoster	1	—	
Onychia	1	—	
Ainhum	2	—	
Tinea Tonsurans	1	—	
Total	264	7	
Class—Injuries.			
Injuries Local—			
Fracture of Phalanx... ..	1	—	
" " Femur	3	—	
" " Humerus	6	—	
" " Fibula	1	—	
" " Spine	1	1	
" " Collar bone	1	—	
" " Ribs	1	—	
" " Radius and Ulna	1	—	
Wounds—			
Incised	14	—	
Contused	10	—	
Lacerated	2	—	
Carried forward —	41	1	

Return of Diseases and Deaths—cont.

GRENADA,
1901.

Diseases,	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	41	1	
LOCAL DISEASES—cont.			
Class—Injuries—cont.			
Wounds—cont.			
Punctured	2	—	
Gunshot... ..	2	1	
Of head—			
Incised	4	—	
Punctured	1	—	
Of Cornea and Iris—			
Punctured	1	—	
Rupture of Kidney	1	—	
Destruction of finger	2	—	
Bite by a hog	1	—	
Dislocations—			
Shoulder	1	—	
Hip	1	—	
Elbow Joint	1	—	
Total	58	2	
Parasites.			
Ankylostoma	3	—	
No Appreciable Diseases.			
Pregnancy	5	—	
For observation... ..	5	—	
Infant with mother	13	—	
Total	23	—	

METEOROLOGICAL RETURN for the YEAR.

	Temperature.							Rainfall.		Winds.		Remarks.
	Solar Maximum.	Maximum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.		
January ...	141.9	—	81.9	72.9	9.0	68.7	5.93	69.4	E.	141	The letter E signifies readings of N.E., E., and S.E.	
February ...	144.5	—	82.8	72.5	10.3	69.1	1.33	71.8	E.	139		
March ...	145.8	—	83.0	72.5	10.5	67.8	2.17	72.2	E.	153		
April ...	145.6	—	84.3	73.9	10.4	70.5	0.71	73.4	E.	142		
May ...	142.1	—	84.8	75.2	9.6	69.8	4.87	71.9	E.	148		
June ...	139.8	—	82.7	74.3	8.4	71.3	8.28	78.4	E.	110		
July ...	141.7	—	83.4	74.1	9.3	71.7	12.58	82.1	E.	69		
August ...	141.6	—	83.5	74.5	9.0	72.1	9.90	79.8	E.	107		
September...	146.3	—	85.3	75.9	9.4	73.2	8.29	77.9	E.	100		
October ...	147.6	—	84.5	75.4	9.1	73.4	9.66	78.7	E.	110		
November ...	145.4	—	83.5	74.8	8.7	72.7	10.26	77.2	E.	117		
December ...	139.8	—	82.0	72.9	9.1	72.3	18.17	79.3	E.	112		

RETURN of the STATISTICS of POPULATION for the YEAR 1901.

—			Europeans and Whites.	Africans.	East Indians.	Chinese and Malays.	Mixed and Coloured.	—
Number of Inhabitants in 1901	...	...	—			
" Births during the year 1901	...	...	2,779					
" Deaths " " 1901	...	...	1,445					
" Immigrants " " 1901	...	...	—	No	record	kept.		
" Emigrants " " 1901	...	...	—			
" Inhabitants at 31st December, 1901	...	...	64,288*					
Increase from date of Census to end of year...	...	...	850					
Decrease ...	...	...	—			

*Based on
results of
Census of
7th April,
1901.

GRENADA,
1901.

HONG KONG,
1900.

No. 12.

HONG KONG.

REPORT OF THE ACTING PRINCIPAL CIVIL MEDICAL OFFICER FOR THE YEAR 1900.

Medical Department,

Government Civil Hospital,

Hong Kong, 23rd January, 1901.

GOVERNMENT CIVIL HOSPITAL.

Police.

The admissions to hospital were in excess of last year, the numbers being 920, as compared with 692, the strength of the force being 866, as against 716. Malarial fever has, as usual, accounted for the larger number of admissions. The confirmation of the malaria-mosquito theory early in the year held out great theoretical hopes that the disease would soon be much diminished, but on mature consideration I do not think very much good can be expected in this direction, especially in the New Territory, where ideal breeding grounds, in the shape of paddy fields exist to such a large extent. I am in hopes that if more attention is paid to the sites and buildings thereon, and quinine freely used in small daily doses, we may see a slow but sure yearly diminution in the cases. Beri-beri accounted for nine admissions and dysentery for 34. This latter disease is generally supposed to be due to bad water supply, and this defect will no doubt soon be remedied as far as the New Territory is concerned, most of the cases coming from this part of the Colony. The causes of beri-beri are still very obscure and the subject of much difference of opinion amongst the

medical authorities, and I therefore offer no opinion or suggestions with reference to preventive measures. The exhaustive inquiry at present being conducted by Dr. Wright, under the Colonial Office, at Singapore, may help shortly to elucidate some of the problems connected with this disease.

The admissions to hospital from the various sections of the force is given in the following table:—

Year.			Europeans.	Indians.	Chinese.
1891	...	...	169	285	118
1892	...	...	152	224	120
1893	...	...	134	255	133
1894	...	...	127	244	134
1895	...	...	96	254	116
1896	...	...	94	370	124
1897	...	...	99	320	107
1898	...	...	87	279	122
1899	...	...	117	421	154
1900	...	...	183	522	215

There were only five deaths amongst the members of the police force during the year. Three Indians died of pneumonia, phthisis, and mania following alcoholism, respectively. Two Chinese died, one, a stoker, who does not appear in the police figures but under "Government Servants," from the effects of an accidental gunshot wound, and one from chronic Bright's disease. Five members of the force were invalided, three Indians and two Chinese. The diseases incapacitating them from further service were phthisis, malarial cachexia, injuries received on duty, and beri-beri.

Table I. shows the admissions into, and deaths in, the Government Civil Hospital during each month of the year.

Table II. shows the rate of sickness and mortality in the police force during the year.

Table III. shows the admissions to hospital for malarial fever from each station during the year. This will be useful in future years in ascertaining the results of any measures which may be taken to suppress the mosquito plague or to prevent their bites giving fever.

HONG KONG, The following table gives the total admissions to hospital
1900. and deaths in the force for the last ten years:—

Year.	Admissions.	Deaths.
1891	570	7
1892	496	7
1893	522	6
1894	505	15
1895	466	8
1896	588	14
1897	526	7
1898	488	19
1899	692	16
1900	920	4

Gaol Staff.

Sixty-five members of the gaol staff were admitted to hospital during the year out of a total staff of 86. There were no deaths and no invaliding out of this number.

Sanitary Department.

This department accounted for 15 admissions, with no deaths and no invaliding, the Chief Inspector being invalided from the Service for phthisis without coming into hospital.

The total number of admissions into the Government Civil Hospital is the greatest yet on record, 3,030, as against 2,734 in 1899. The total number of out-patients was 13,883, against 13,744.

The following table gives the number and classification of those admitted during the past ten years :—

	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.
Police	570	496	522	505	466	588	529	488	692	920
Board of Trade...	135	157	132	100	123	87	45	65	25	37
Paying patients	464	378	467	491	498	632	603	741	764	891
Government servants ...	179	168	205	168	203	269	227	186	208	266
Police cases	240	232	247	272	319	244	299	306	306	347
Free patients	279	284	262	427	668	778	742	785	739	569
Total	1,867	1,715	1,835	1,903	2,283	2,598	2,445	2,571	2,734	3,030

HONG KONG,
1900.

HONG KONG,

1900.

There is an increase in all classes except the "Free" patients; owing to the limited space at our disposal it was frequently impossible, especially in the summer months, to admit many deserving cases. This is a strong reason for an increase in the hospital accommodation, as the poorer classes, especially Chinese, have a strong claim on the community for proper medical treatment and care. The troubles in the north accounted to a small extent for the increase in the private paying patients, as several foreign sailors and soldiers were sent to hospital from the various transports.

The admissions into and deaths in the hospital for the past ten years are as follows:—

Year.	Admissions.	Deaths.
1891	1,867	84
1892	1,715	68
1893	1,835	67
1894	1,963	101
1895	2,283	114
1896	2,598	143
1897	2,445	119
1898	2,571	138
1899	2,734	114
1900	3,030	155

The rate of mortality for the past year was 5·10 per cent.

The average daily number of sick was 110·95, as against 106·36 in 1899.

Women and Children.

The number admitted was 325. As has already been pointed out, our accommodation for patients of this sex is practically limited to one general ward of 14 beds for all nationalities, and this in a way accounts for the small number of patients. A proper hospital, or rather annexe to this hospital, is much required.

Europeans. :

943 were admitted during the year, as against 811 in 1899, an increase of 132.

*Indians.*HONG KONG,
1900.

788 were admitted, as against 659 last year; of this number 522 were members of the police force. |

Asiatics.

As usual these form the bulk of our patients, 1,299, against 1,264 for last year. Owing to the limited accommodation at our disposal, especially in the summer, large numbers of this nationality, especially the destitute Chinese, have had to be refused admission.

DISEASES.

Malarial Fever.

674 cases have been treated during the year, as against 469 last year. The confirmation by Manson and others of the discovery by Bignami, in 1898, that mosquitos can and do give malaria to human beings has given a great impetus to the study of this disease, and a large amount of speculation has arisen as to the best means of getting rid of these pests. Personally, I am of opinion that a great deal more knowledge is required of the life history of these insects before there will be much chance of doing any permanent good in this direction. Dr. Thomson's report, up to date, on the prevalence of anopheles confirms the fact that on their presence or absence depends the number of cases of fever in a given locality. Perhaps some energetic entomologist may turn up in the Colony who will devote his time to ascertaining more about the breeding places and time, and other facts connected with their mode of living, for in this direction lies some hope of keeping them under. The total destruction of such a large family as the mosquito seems to me an almost impossible undertaking, and, though in individual cases some good may be done, I do not think much hope can be held out of any large diminution in the cases of malaria by destroying these pests. Clinically the disease has become much more interesting to us all, and I trust this interest has been equally beneficial to the patients.

I hope next year's report will contain exact information as to the varieties of fever prevalent throughout the year. It seems to me that this year the disease has been of a more malignant type, though this impression may be owing to the better and more scientific methods now in use in diagnosing the disease. There have been three cases of what is known as the coma form of malaria under treatment, two Europeans and one Chinese, with two deaths, a European and a Chinese. The Appendix gives an account of two cases of interest.

I am still of opinion that the best prophylaxis is the daily use of a small dose of quinine (3 to 5 grains) throughout the

HONG KONG, summer (May to November), but I am very sceptical as to whether
 1900. it will ever be possible to persuade the bulk of the population
 — to adopt this course. I certainly think the better educated
 amongst the community might, in this instance, do worse than
 follow medical advice, though possibly they will prefer to go
 on expecting Government to kill off all the mosquitos regardless
 of cost, which idea seems at present to have taken hold of most.
 I may say that this course of treatment does not prove in any
 way injurious.

Enteric Fever.

30 cases have been under treatment, with 10 deaths; of this
 number 11, with three deaths, were imported into the Colony.

Dysentery.

95 cases were admitted, of which number 34 came from the
 police.

Beri-beri.

29 cases were under treatment, but this gives no idea as to
 the prevalence of the disease here, as with our limited accom-
 modation we can only take in the most serious cases. There
 were nine cases amongst the police, all Chinese, and all newly-
 joined recruits. Practically little or nothing is known as yet
 about the causes of this tropical disease, but we may, I think,
 look forward to more enlightenment on the subject from
 Dr. Wright's investigations in the Straits Settlements.

Diphtheria.

Only four cases were admitted, all from the Berlin Foundling.
 The antidiphtheritic serum was used in all cases with marked
 benefit, but three of the cases died. They were weak, sickly
 children, and all had complications (malignant malaria,
 dysentery, and pneumonia).

Hepatic Abscess.

Five cases were under our care, with two deaths. One of the
 deaths was in a Chinaman who, as far as my experience goes,
 are little troubled with this disease. He had been 14 days under
 quack treatment at the Tung Wa before he came to us, and
 this long delay of course very materially influenced the result.
 One case, being of interest, has been reported in the Appendix.

Appendicitis.

Six cases were admitted to hospital, with no deaths. Of this
 number two were operated on, three recovered without an abscess

forming, and one recovered after the abscess had burst through HONG KONG,
1900.
into the rectum

Tetanus.

One case occurred in the person of a Chinaman, who was brought in in the last stages of the disease and rapidly succumbed.

Cholera.

We are able to report another year without any cases of this disease. Looking at the water supply of the Colony it seems almost an impossibility for this disease ever to take any footing here.

Bullet Wounds.

18 cases of this form of injury have been under treatment. We are much handicapped in treating them, as well as injuries about joints, by the want of an X-Rays apparatus.

Veneral Disease.

Our accommodation for treating this disease being so extremely limited, the number of cases admitted do not prove anything one way or the other as to the increase or otherwise of the prevalence of the various forms of this disease. In the out-patient department, however, they form a very large number of the cases, and some of the cases were very serious, not so much from the virulence of the disease as from the want of proper treatment. It is a pity, as the Principal Civil Medical Officer remarked in his report last year, that the Tung Wa do not take in these cases as so much can be done both in treating the patients, if seen early, and by so doing preventing the spread of the disease. From the latter point of view more especially, it is much to be desired that a Lock Hospital for Chinese existed in the Colony. In the whole Colony, for the treatment of all the men so afflicted, other than Europeans, there is only the one ward of 14 beds in this hospital—a manifestly inadequate number.

Guinea Worm.

This obnoxious disease does not fortunately exist in the Colony, but one case has been under treatment in the person of a young Indian policeman, who brought the disease with him from India, and so gave us an opportunity of studying another tropical ailment.

HONG KONG,

1900.

Poisoning.

The chief poisoning cases were due to opium (two) and datura alba (four)—one of the former died and the latter all recovered.

Surgical Operations.

As usual, a large number of cases came under the surgical side. Four of the most important are given in the Appendix. The case of splenectomy is the first successful one, I believe, ever done in the Colony for ruptured spleen. I am very much obliged for the skilful help rendered to me on the occasion by Dr. Thomson, Captain Wall, I.M.S., and Lieutenant Rait, I.M.S.

Lithotomy.

Only two cases were operated on for stone during the year, both successful.

Strangulated Hernia.

Two cases were admitted for this trouble; both were operated upon, with one fatal result.

Amputation through the shoulder joint, with excision of the scapula and outer half of the clavicle. This most serious operation was performed by Dr. Lowson for extensive necrosis. The result was most successful, and the patient is now alive and well.

Anæsthetics.

Chloroform was administered 156 times during the year without any bad result. The majority of the cases were anæsthetised, as usual, by Krohne and Seismann's modification of Junker's inhaler, and the remainder with Skinner's mask.

Fractures and Dislocations.

The following were treated during the year:—

Fracture of the skull	...	...	...	12
" " arm	...	...	...	5
" " fore-arm	...	...	...	3
" " collar bone	...	...	...	3
" " ribs	...	...	...	2
" " thigh	...	...	...	11
" " leg	...	...	...	10
" " patella	...	...	...	2
" " pelvis	...	...	...	1
Dislocation of the hip	...	...	...	1
" " shoulder	...	...	...	1
" " elbow	...	...	...	2
" " wrist	...	...	...	1

*Vaccinations.*HONG KONG,
1900.

Vaccinations were performed during the year:—

—			Successful.	Unsuccessful.	Total
Primary cases	...	...	123	3	126
Re-vaccinations	...	...	145	63	203
					334

POLICE.

TABLE I.—Shewing the ADMISSIONS into, and DEATHS in, the GOVERNMENT CIVIL HOSPITAL during each Month of the Year 1900.

Months.	Europeans.		Indians.		Chinese.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Remaining on the 1st January, 1900.	5	—	9	—	2	—	16	—
January	14	—	21	—	10	—	45	—
February	11	—	22	—	20	—	53	—
March	9	—	17	—	12	—	38	—
April	21	—	21	1	11	—	53	1
May... ..	10	—	34	—	16	—	60	—
June	10	—	44	—	20	—	74	—
July	14	—	42	1	17	—	73	1
August	22	—	82	—	24	1	128	1
September	21	—	78	1	28	—	127	1
October	17	—	66	—	21	—	104	—
November	16	—	58	—	26	—	100	—
Décember	13	—	23	—	8	—	49	—
Total	183	—	522	3	215	1	920	4

TABLE II.—Shewing the RATE of SICKNESS and MORTALITY in the POLICE FORCE during the Year 1900.

Average Strength.			Total Sickness.			Total Deaths.			Rate of Sickness.			Rate of Mortality.			
European.	Indian.	Chinese.	Total.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.	European.	Indian.	Chinese.
135	354	377	866	183	522	215	—	3	1	135·5	147·4	57·02	—	0·57	0·4

TABLE III.—Shewing the ADMISSIONS to HOSPITAL from the POLICE for MALARIAL FEVER from each Station, during the Year 1900.

[illegible]

TABLE III.—Shewing the Admissions to Hospital from the Police for Malarial Fever from each Station, during the Year 1900—continued.

HONG KONG,
1900.

Stations.	Average Strength.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
No. 7 ...	56	—	—	3	—	1	4	4	3	6	8	3	2	34
No. 8 ...	28	—	1	—	—	—	1	2	1	2	3	—	—	10
Tzat Tzs Mui ...	5	—	—	—	—	—	—	1	2	2	2	—	1	8
Shaukiwan ...	10	—	—	—	—	—	—	1	4	1	1	—	—	7
Aberdeen ...	14	—	—	—	—	—	1	1	4	1	—	—	—	7
Stanley ...	7	—	—	—	—	—	—	—	2	1	—	1	—	4
Pokfulam ...	4	—	—	—	—	—	—	—	—	—	1	1	—	2
Gap ...	—	1	—	—	—	—	—	—	1	—	1	—	—	3
Mount Gough ...	18	—	—	—	—	—	—	—	1	1	1	2	—	5
Water ...	130	1	—	2	3	3	2	5	4	1	2	3	2	28
Yau-nai ...	64	—	—	—	—	—	—	—	2	—	—	—	—	2
Hungbom ...	—	—	—	—	—	—	—	—	—	2	1	—	—	3
Sha Ta Kok ...	19	—	—	—	—	1	4	6	10	6	5	1	—	33

TABLE III.—continued.

Stations.	Average Strength.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Ping Shang	23	—	—	—	—	—	—	—	—	—	3	—	—	3
Tung Ching	7	—	—	—	—	—	—	—	1	1	1	—	—	3
Sai Kung...	6	—	—	—	—	—	—	—	—	1	1	—	—	2
Sun Tin ...	19	—	—	—	—	1	—	—	—	—	—	1	—	2
Kowloon City	15	1	—	—	—	—	—	1	2	2	1	2	1	10
Tai O ...	11	—	—	1	—	1	—	1	6	1	1	1	—	12
Un Long...	—	—	1	—	—	—	—	—	—	—	—	—	—	1
Sba Tin ...	14	—	1	1	—	1	—	1	6	1	1	2	—	14
Tai Po ...	16	—	—	2	—	—	2	4	9	7	4	—	2	30
Au Tau ...	20	—	—	—	—	1	2	5	8	6	10	—	3	35
Shek O ...	2	—	—	—	—	1	1	—	—	—	—	—	—	2
Sheung Shui	25	—	—	—	—	1	1	1	2	—	—	2	—	7
Total	—	4	4	10	13	15	32	41	92	65	69	26	19	390

TABLE IV.—Shewing the ADMISSIONS and MORTALITY in the HONG KONG, GOVERNMENT CIVIL HOSPITAL during the Year 1900. 1900.

General Diseases.	Admissions.			Total	Deaths.			Total.
	Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.		Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.	
German Measles ...	2	—	1	3	—	—	—	—
Plague ...	3	—	14	17	1	—	3	4
Influenza ...	45	45	24	114	—	1	1	2
Mumps ...	—	5	3	8	—	—	—	—
Diphtheria ...	—	—	4	4	—	—	3	3
Simple fever, continued	7	5	8	20	—	—	—	—
Enteric Fever...	21	3	6	30	7	1	2	10
Dysentery ...	40	49	6	95	—	2	1	3
Beri-beri ...	—	2	27	29	—	1	4	5
Malarial Fever ...	160	320	194	674	1	—	2	3
Malarial Cachexia ...	2	2	1	5	—	1	—	1
Phagedoena ...	2	1	4	7	—	—	—	—
Erysipelas ...	—	—	2	2	—	—	—	—
Pyæmia ...	—	—	2	2	—	—	1	1
Puerperal Fever ...	—	1	—	1	—	1	—	1
Tetanus ...	—	—	3	3	—	—	3	3
Tubercle ...	—	3	—	3	—	2	—	2
Leprosy ...	—	—	1	1	—	—	—	—
Syphilis—								
(a.) Primary ...	11	6	13	30	—	—	—	—
(b.) Constitutional	36	4	46	86	—	—	—	—
(c.) Inherited ...	—	—	4	4	—	—	—	—

HONG KONG, Table IV.—Shewing the admissions and mortality in the Government Civil Hospital during the year 1900—*continued*.

General Diseases.	Admissions.			Total.	Deaths.			Total.
	Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.		Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.	
Gonorrhœa	41	5	16	62	—	—	—	—
Malignant Pustule ...	—	—	2	2	—	—	—	—
Diseases due to Animal Parasites.	2	7	4	13	—	—	—	—
Diseases due to Vegetable Parasites.	2	6	1	9	—	—	—	—
Effects of Vegetable Poisons.	1	1	7	9	—	—	1	1
Effects of Heat ...	6	—	24	30	1	—	4	5
Scurvy... ..	2	—	—	2	—	—	—	—
Alcoholism	55	3	3	61	5	—	—	5
Rheumatic Fever ...	7	2	—	9	—	—	—	—
Rheumatism	15	15	16	46	—	—	—	—
Gout —	1	—	—	1	—	—	—	—
Cyst	—	—	2	2	—	—	—	—
New growth, Non-malignant.	—	—	4	4	—	—	—	—
New Growth, Malignant	3	—	11	14	1	—	1	2
Anæmia	2	4	3	9	—	—	—	—
Diabetes mellitus ...	—	—	1	1	—	—	—	—
Congenital Malformation.	1	—	—	1	—	—	—	—
Debility	43	18	34	95	—	2	2	4
Old Age	1	—	—	1	—	—	—	—

Table IV.—Shewing the admissions and mortality in the Government Civil Hospital during the year 1900—*continued*. HONG KONG,
1900.

General Diseases.	Admissions.			Total.	Deaths.			Total.
	Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.		Europeans.	Indians and Coloured persons.	Asiatics, including Japanese.	
LOCAL DISEASES.								
Diseases of the—								
Nervous System ...	31	13	111	155	2	3	7	12
Eye	11	10	25	46	—	—	—	—
Ear	2	4	—	6	—	—	—	—
Nose	—	2	—	2	—	—	—	—
Circulatory System..	9	4	6	19	3	2	2	7
Respiratory System	33	56	35	124	4	11	11	26
Digestive System...	112	61	72	245	3	2	7	12
Lymphatic System...	30	8	29	67	—	—	—	—
Urinary System ...	22	6	18	46	7	1	6	14
Generative System...	4	—	—	4	—	—	—	—
Male Organs	34	6	23	63	—	—	—	—
Female Organs ...	3	—	14	17	—	—	—	—
Organs of Locomotion.	30	24	45	99	—	—	—	—
Connective Tissue...	13	6	14	32	—	—	—	—
Skin... ..	7	10	5	22	—	—	—	—
Local Injuries ...	70	38	350	458	1	1	27	29
Under Observation ...	21	33	61	115	—	—	—	—
Total	943	788	1,299	3,030	36	31	88	155

HONG KONG, TABLE V.—List of OPERATIONS performed during the Year 1900.

Surgical Operations.						Operations.	Deaths.
Removal of Tumours—							
Buboes, Incision	...	...	...	...	...	34	—
„ Scraping	...	...	...	...	...	22	—
Sebaceous Cyst	...	...	...	...	...	3	—
Stramons Glands	...	...	...	...	...	1	—
Epithelioma of Breast	...	...	...	...	...	1	—
„ of Penis	...	...	...	...	...	1	—
„ of Scalp	...	...	...	...	...	1	—
Polypus Nasi	...	...	...	...	...	1	—
Warts of Labium	...	...	...	...	...	1	—
Wounds—							
of Wrist	...	...	...	...	...	1	—
of Foot	...	...	...	...	...	5	—
of Arm (Gun-shot)	...	...	...	...	...	1	—
of Thigh (Gun-shot)	...	...	...	...	...	5	—
of Abdomen (Gun-shot)	...	...	...	...	...	2	1
Eye Operations—							
Enucleation of Eye-ball	...	...	...	...	...	3	—
Hypopyon	...	...	...	...	...	2	—
Operations on Head and Neck—							
Ankylosis of Jaw	...	...	...	...	...	1	—
Necrosis of Jaw	...	...	...	...	...	1	—
Malignant Pustule	...	...	...	...	...	1	—
Trephining	...	...	...	...	...	2	1
Operations on Respiratory Organs—							
Paracentesis Thoracic	...	...	...	...	...	2	—
Empyema	...	...	...	...	...	1	—
Operations on Genito-Urinary Organs—							
Male—							
Circumcision	...	...	...	...	...	6	—

Table V.—List of operations performed during the year 1900—HONG KONG,
continued. 1900.

Surgical Operations.	Operations.	Deaths.
Operations on Genito-Urinary Organs—<i>cont.</i>		
<i>Male—cont.</i>		
Stricture of Mealus	2	—
Phagœdena... ..	1	—
Urethral Calculus	1	—
Abscess of Penis	1	—
Perineal Abscess	6	—
Lithotomy	2	—
Hydrocele	4	—
Excision of Testicle	1	—
<i>Female—</i>		
Labial Abscess	1	—
Endometritis —	1	—
Uterine Polypus	1	—
Operations on Digestive Organs—		
Abscess of Liver	5	1
Hæmorrhoids... ..	3	—
Fistula in Ano	6	—
Hernia	1	—
Appendicitis	2	1
Laparotomy (Exploratory)	1	—
Operations on Lymphatic System—		
Splenectomy	3	2
Operations on Organs of Locomotion—		
Amputation of Thigh	3	—
„ of Leg	1	—
„ of Foot	3	—
„ of Arm	5	1
„ of Hand	5	—
„ of Finger and Toes	14	—

HONG KONG, Table V.—List of operations performed during the year 1900—
1900 *continued.*

Surgical Operations.	Operations.	Deaths.
Operations on Organs of Locomotion— <i>cont</i>		
Excision of Head of Humerus	3	—
" " of Femur	1	—
Necrosis of Humerus	1	—
" of Tibia	3	—
" of Foot	2	—
Loose Body in Knee Joint	1	—
Operations on Cellular Tissue—		
Abscess	30	—
Extraction of Guinea-Worm	3	—
Total	225	7

TABLE VI.—Shewing the RATE of MORTALITY in the
GOVERNMENT CIVIL HOSPITAL during the last Ten Years.

Year.	Rate to Total Number of Admissions.	Rate to Number of Europeans Admitted.	Rate to Number of Coloured Persons Admitted.	Rate to Number of Asiatics Admitted.
	Per cent.	Per cent.	Per cent.	Per cent.
1891 ...	4.49	3.46	2.97	7.33
1892 ...	3.96	2.92	3.28	5.74
1893 ...	3.65	1.57	2.28	7.34
1894 ...	5.14	3.71	3.51	7.36
1895 ...	4.99	2.47	1.32	8.35
1896 ...	5.50	3.65	1.84	8.88
1897 ...	4.86	3.63	2.61	6.56
1898 ...	5.36	5.07	2.07	6.59
1899 ...	4.16	4.06	2.27	5.22
1900 ...	5.16	3.81	3.93	6.77

TABLE VII.—Shewing the ADMISSIONS into, and DEATHS in, HONG KONG, the GOVERNMENT CIVIL HOSPITAL during each Month of 1900.

Months.	Europeans.		Coloured.		Asiatics.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Remaining on the 1st January, 1900.	39	—	19	—	51	—	109	—
January	75	1	44	4	102	9	221	14
February	52	—	40	—	95	5	187	5
March	51	1	35	2	106	11	192	14
April	71	3	34	3	88	4	193	10
May... ..	51	5	53	2	102	3	206	10
June	61	3	64	4	106	9	231	16
July... ..	80	6	68	3	104	6	252	15
August	115	4	118	2	119	9	352	15
September	109	5	104	2	121	9	334	16
October	91	4	84	4	118	9	293	17
November	84	3	75	3	112	5	271	11
December	64	1	50	2	75	9	189	12
Total	943	36	788	31	1,299	88	3,030	151

TABLE VIIA.—Monthly AGGREGATE NUMBER of PATIENTS visited in the Hospital daily for 1900, 1899 and 1898.

Months.	1900.	1899.	1898.
January	6,522	3,414	3,321
February	2,642	3,079	3,006
March	3,469	3,400	3,184
April	2,785	3,287	3,138
May	2,938	3,526	3,316
June	3,157	3,129	3,086

HONG KONG,
1900.Table VIIA.—*continued.*

Months.	1900.	1899.	1898.
July	3,110	3,207	3,449
August	3,516	3,745	3,353
September	3,850	4,054	3,654
October	3,278	3,697	3,303
November	2,698	3,471	2,732
December	1,522	3,530	3,188
Total	39,487	41,539	38,730

TABLE VIIB.—Shewing the ADMISSIONS into, and DEATHS in, the GOVERNMENT LUNATIC ASYLUMS during each Month of the Year 1900.

Months.	Europeans.		Coloured.		Chinese.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Remaining on the 1st January, 1900.	3	—	1	1	11	—	15	1
January	1	—	—	—	17	1	18	1
February	2	—	—	—	4	—	6	—
March	—	—	—	—	8	—	8	—
April	—	—	—	—	9	1	9	1
May... ..	1	—	—	—	3	—	4	—
June	—	—	—	—	5	—	5	—
July	—	—	—	—	8	—	8	—
August	—	—	1	—	7	1	8	1
September	—	—	1	—	11	1	12	1
October	1	—	—	—	7	—	8	—
November	—	—	—	—	4	—	4	—
December	1	—	—	—	3	—	4	—
Total	9	—	3	1	97	4	109	5

TABLE VIIc.—Shewing the NUMBER of PATIENTS admitted HONG KONG, to the LUNATIC ASYLUM under the respective diseases. 1900.

Diseases.	Europeans.		Indians.		Chinese.		Total
	Male.	Female.	Male.	Female.	Male.	Female.	
Mania	—	1	—	—	15	15	31
Delusional Insanity ...	4	—	—	—	5	1	10
Dementia	3	—	3	—	43	12	61
Melancholia	1	—	—	—	5	—	6
Idiocy	—	—	—	—	—	1	1
Total	8	1	3	—	68	29	109

TABLE VIId.—Shewing the ADMISSIONS into, and DEATHS in, the GOVERNMENT MATERNITY HOSPITAL during each Month of the Year 1900.

Months.	Europeans.		Japanese.		Chinese and Indians.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
Remaining on the 1st January, 1900.	—	—	—	—	—	—	—	—
January	3	—	1	—	—	—	4	—
February	2	—	—	—	1	1	3	1
March	3	—	—	—	1	—	4	—
April	4	—	—	—	2	1	6	1
May... ..	1	—	1	—	—	—	2	—
June	—	—	—	—	2	—	2	—

HONG KONG,
1900.Table VII D.—*continued.*

Months.	Europeans.		Japanese.		Chinese and Indians.		Total.	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
July	4	—	1	—	3	—	8	—
August	2	—	4	1	1	—	7	1
September	1	—	1	—	2	—	4	—
October	3	—	—	—	4	1	7	1
November	1	—	—	—	3	—	4	—
December	1	—	—	—	2	1	3	1
Total	25	—	8	1	21	4	54	5

J. BELL,

Acting Principal Civil Medical Officer.

APPENDIX.

CASE OF MALARIA COMATOSA—DEATH.

A Swedish officer, residing at "Glenwood," Caine Road, was admitted at 6 p.m. on 15th November, 1900, suffering apparently from typhoid fever. He was extremely ill, temperature 102° , dry brown tongue, sores on lips, low muttering delirium, and a quick small pulse. He had all the appearances of a patient dying from enteric fever. Next morning his temperature was subnormal, and his blood was examined. The slides showed large numbers of malignant tertian parasites. Notwithstanding large hypodermics of quinine (70 grains in all) he continued in the same condition till 6 p.m. on 17th November, 1900, when he died, his temperature ranging from 101° to 103° , and the blood showing crescents for the first time on the day of his death.

Post-mortem.—Showed effusion on the surface of the brain HONG KONG, and in the ventricles. Liver enlarged, weighing 90 oz. Spleen 1900. enlarged and very soft, 33 oz. Kidneys congested, 11 oz. each. — Intestines and intestinal glands quite normal.

Remarks.—Without any history, and without a microscopical examination of the blood, it would have been difficult to distinguish this case from enteric fever, as the subnormal temperature might have been due to hæmorrhage on moving the patient. It is the worst case of this form of malaria that any of us had ever seen, and emphasises the importance of examining the blood in all cases of fever in this country.

ENTERIC FEVER—TWO RELAPSES—RECOVERY.

A young German, aged 25 years, was admitted to hospital on January 7th with a history of five days' continued fever accompanied by headache, pain in the limbs, &c. His tongue was furred in the centre and clean at the tip edges. There was gurgling in the right iliac fossa, with pain on pressure. Temperature 104° .

Initial attack.—This lasted for 30 days, the temperature ranging between 101° and 104° . There were crops of roseola spots, splenic enlargement, with tenderness pressure over the spleen, occasional epistaxis and delirium on the 21st day, with a feeble pulse of 144, and constipation. This latter symptom was most troublesome throughout. From the 30th to 41st day the fever was of the intermittent type, normal or 99° in the morning, and 100° or 103° (105° once) in the evening. From the 41st to 54th day (13 days) it remained normal, and on this day he had a dose of castor oil, followed by great pain in the abdomen, and an evening temperature of 102° .

First Relapse.—This lasted for 20 days, the temperature ranging between 100° and 104° , with a dry furred tongue, retention of urine, a dry rub at left base, and a bad pulse throughout. The temperature remained normal for 14 days (up to 87th day), when patient had a dose of *cascara sagrada*, followed by much abdominal pain and distress, and an evening temperature of 101.8 .

Second Relapse.—This lasted 13 days, temperature varying between 100° and 103° , with low delirium, feeble quick pulse, and great depression.

Patient slowly convalesced, and was up for the first time on the 120th day, and left for Europe after 149 days in hospital.

Remarks.—This case shows the amount of vitality possessed by some patients. He was not a robust young man, having been rejected for the army and only weighing 108 lbs. on admission. Such a long illness on an ordinary mattress without a bed sore speaks volumes for the nursing, and great credit is

HONG KONG, due to Sister Hope and Sister Edith for the keen and intelligent interest they took in the case throughout.

PNEUMONIC PLAGUE—RECOVERY.

A Greek sailor was admitted to hospital on the 17th April suffering from gonorrhœa. His temperature was 101° , with furred tongue, and a general apathetic condition, but this latter was thought to be owing to his being unable to speak English. His condition for the next two days was decidedly worse, though nothing definite could be made out. On the 20th, Dr. Lowson saw the case, and agreed that it was very suggestive of plague, and shortly after this he coughed up some typical bloody sputum, which was found full of bacilli. His pulse and general condition being so bad, it was thought better to isolate him in a private ward here instead of transferring him to Kennedy Town Hospital. Carbolic acid gr.x^a every three hours was at once started, with brandy, strychniæ, &c., to counteract the cardiac depression. After a very few doses of this medicine his tongue, which was dry and brown, soon became moist, and the violent delirium passed into the quiet kind, when he was easily fed and kept from getting out of bed. On the 22nd he was decidedly better—tongue moist and cleaning, breath no longer offensive, and pulse good, and no longer intermitting, sleeping well, and no delirium. Sputum increased in quantity, but no blood. Bacilli still present. Temperature 103° . On the 24th his temperature fell to normal, and he was practically well, though he looked very pale and pinched. Sputum had ceased entirely. Under tonics and full diet he rapidly convalesced and left the hospital on the 30th.

Remarks.—This patient had, roughly, 280 grains of carbolic acid, without any bad symptoms. From his friends we obtained the information that he had been down once to Ship Street, but they were uncertain of the date—14 to 20 days before admission. One case proves nothing, but the high rate of mortality from this form of the disease, the serious condition of the patient, and his rapid improvement, makes one feel that the drug had a good deal to do with the successful result.

PUERPERAL FEVER—RECOVERY AFTER THE INJECTION OF ANTISTREPTOCOCCUS SERUM.

A Chinese female, aged 20, was admitted to the Maternity Hospital on the 15th March, with a history of having been in labour for four days. The patient's temperature was 103° , and she was already suffering from septicæmia. The head of the child was outside the vagina. After some difficulty a blunt hook was passed into the left armpit and delivery effected. The

temperature kept up between 101° and 104° , with most offensive vaginal discharge, bad pulse (120-130), and offensive diarrhœa. The usual antiseptic douches were used, good diet, camphor and strychnia hypodermically for the pulse which was constantly threatening to fail. On the 19th the patient was very ill and evidently sinking, with temperature 104° , pulse 120, and very offensive discharge and diarrhœa. As a last resource, 10 c.c. of serum were injected at 7 p.m. Next day the temperature had fallen to 102° , but the discharge was still very offensive, so another 10 c.c. were given at 11 a.m. From now on everything changed rapidly for the better. Pulse and temperature both improved, discharge quickly became normal, and the diarrhœa ceased. The convalescence was retarded a little owing to the formation of an abscess at the seat of the first injection. The patient was discharged quite well on the 19th April. The serious condition of the patient and the rapid general improvement leave no doubt that the success was entirely due to the use of the serum.

HONG KONG,
1900.

ACUTE PANCREATITIS—RECOVERY.

An American, aged 19, was admitted on the 21st August suffering from malarial fever. Temperature 104.6 , vomiting, furred tongue, and conjunctiva very yellow. He had had previous attacks of malaria. Under morphia, hypodermery, calomel, and quinine, the vomiting ceased, and the fever rapidly subsided, and on the 5th day he was up and out of bed. There was a slight relapse for which he was treated. On the 11th day he was suddenly taken alarmingly ill. Intense abdominal pain, chiefly at the pit of the stomach, cold clammy perspiration, hurried respiration, vomiting, and an almost uncountable pulse were the chief symptoms. He was at once seen, and the abdomen found to be very tympanitic and tender, the pain being most intense over an area above the umbilicus, and to the left of the middle line. An enema brought away a large quantity of pale pasty fœces, and this relieved the pain somewhat. The condition, which puzzled us very much, continued for 48 hours, during which time he required constant hypodermics of camphor and strychnia to keep him alive. His pulse now improved rapidly, though the pain and tympanites still continued. A dull area, corresponding to the pancreas, could now be made out easily, and this was very tender on deep pressure. The patient slowly improved, and was gradually brought on to solid diet. The dulness continued for some days and then disappeared. He was discharged well on the 14th September.

Remarks.—This case was most puzzling after the collapse set in, and it appeared as if an ulcer, duodenal or otherwise, had ruptured. Just at the time, the *Lancet* of July 28th arrived, containing Mayo Robson's article on pancreatitis, and at once

HONG KONG, gave us the clue to the disease. I have no doubt that this was 1900. the cause of the patient's serious collapse and other symptoms.

OVARIAN TUMOUR—OPERATION—RECOVERY.

A Japanese female was admitted to the Maternity Hospital on 14th January, and delivered, without any trouble, of a male child. On the 6th day the temperature rose suddenly to 102° , with great pain and tenderness on pressure all over the abdomen, chiefly on the right side, at McBurney's point. The patient gave an account of a similar attack some time previously, and it was thought she was suffering from an attack of appendicitis. Under treatment she slowly recovered, and after a month she was removed to the general hospital. An examination now showed a tumour extending to both sides of the abdomen, and probably growing from the right ovary. On March 28th abdominal section was performed, the incision extending from the umbilicus to an inch above the symphysis pubis. The tumour was a thin-walled multilocular cyst growing from the left ovary, and with only one extensive adhesion to the right loin. One of the cavities contained a considerable amount of flaky pus, and this no doubt accounted for the attack after pregnancy. Some time was taken in clearing out the fluid which had escaped into the abdominal cavity and in arresting the hæmorrhage from the deep adhesion. Silk and silkworm gut were used for the sutures, and a gauze drain was left in the lower end of the wound for 48 hours. There was no shock although the operation lasted three-quarters of an hour, and no after vomiting. The temperature rose to $100\cdot8$ the following day, but it fell after the removal of the drain and continued normal throughout. The wound, which healed completely by first intention, was dressed on the 9th day, the silk sutures removed on the 10th, and the gut on the 13th. The antiseptics held throughout, and this no doubt contributed to the successful result. Mr. Lockwood's recommendations were carried out thoroughly and minutely. Silk sutures are not satisfactory, and gut should always be used in these cases.

HEPATIC ABSCESS—REMOVAL OF A RIB—RECOVERY

B. J., admitted to hospital on the 5th May, 1900, suffering from vomiting and diarrhœa, but no fever. There was a doubtful history of dysentery at Singapore six months previously. The liver dulness was normal, and the tenderness and pain (which were present before his admittance) were gone. On the 16th of May his temperature rose to 100° , and kept up between 100° and 101° , when on aspiration pus was found in the liver. The abscess was opened in the usual way and a piece of the rib excised. The temperature fell in 48 hours to normal till the

1st June, when it again rose to 100°, and on the 10th he had a very severe fever, with temperature 103°. There was slight tenderness just below the ribs in the mid-axillary line. His temperature now kept rising to 105° and 104°, and on the 13th six punctures failed to detect pus. His condition remained the same, with furred tongue, vomiting, fever, and great loss of flesh, and occasional fever. Quinine, carbolic acid, in large doses, and antistreptococcus serum were all tried without result. On the 19th July the liver was again explored with negative results, but three ounces of clear serum were drawn off from the right pleural cavity. His condition getting worse, he was again put under chloroform on the 22nd July, when the whole of the ninth rib was found necrosed and was removed up to half-an-inch from the spine. His temperature still continued to rise in the evening to 100° and 101°, but he slowly convalesced after a large abscess in the right thigh was opened. The patient's weight fell from 150 lbs. to 122 lbs. Patient was discharged on the 1st September. After a trip to Japan returned *en route* to England. His weight had improved, and this very large incision completely healed, though he still showed traces of the severe illness he had been through.

HONG KONG,
1900.
—

RUPTURED SPLEEN—OPERATION—RECOVERY.

A Chinese adult male was assaulted by two lukongs early in the morning of the 6th September. He walked to the Chinese hospital (Tung Wa) from No. 2 Police Station, and after his dying depositions had been taken, was brought to this hospital at 1 p.m. Patient was in much pain and very collapsed with dulness in both flanks. The abdomen was rapidly opened in the middle line, blood clots removed, and the spleen ligatured and removed. This organ weighed 16 ounces and was found ruptured right across from anterior to posterior border. During the operation Dr. Thomson and Lieut. Rait, I.M.S., transfused, which proceeding contributed in no small way to the success of the case. The patient rallied fairly quickly from the shock. On the third day, as the wound was gaping owing to the great intestinal detention, chloroform was again administered and several more stitches inserted. Free purging removed the distention, and the after history of the case was uneventful. Patient attended Court on the 26th October and left hospital apparently perfectly well on the 30th.

RUPTURED SPLEEN—OPERATION—DEATH FROM FRACTURED SKULL.

A Chinese adult male was admitted at 10.30 a.m. on the 19th September, having been mixed up shortly before in a free fight. Patient was not much collapsed, but complained of great

HONG KONG, 1900. pain all over the abdomen. He continued in much the same condition till 8 p.m., when his pulse being worse, and the dulness in left flank marked, it was determined to perform abdominal section. Taking his depositions unfortunately involved loss of time, but at midnight, with the assistance of Dr. Jordan, the abdomen was opened, blood clot cleared out, and the spleen removed. This organ weighed 18 ounces, and the rupture had occurred underneath the capsule, which was completely raised from the surface of the organ, and had eventually given way near the hilum. Previous to the operation two pints of saline fluid were transfused into the connective tissue over the pectoral muscle. At 8 p.m. next day the patient seemed quite out of danger. His pulse had improved, all shock had disappeared, and his temperature was 100° . The next day, however, cerebral symptoms set in, with coma gradually deepening, restlessness, and a rising temperature, till 8 p.m. on the 21st, when he died, temperature 105.8 , and pulse 150.

Post-mortem.—Examination showed the ligature firm on the stump and the abdomen clean. There was a fracture on the left side extending through the petrous portion of the temporal bone to the base and a large clot pressing on the medulla.

MALIGNANT MALARIA—APHASIA—RECOVERY.

A German engineer from a steamer trading between here and Haiphong was admitted on the 24th December. He was in a curious dazed condition, unable to speak distinctly, and could give no clear account of his illness. Temperature 99° , tongue furred, but no vomiting, and apparently no pain anywhere. Heart and lungs were normal, but pulse slow and very feeble. Pupils normal and no facial paralysis. The splenic dulness was increased, liver normal, but skin and conjunctiva yellowish. A blood slide, taken on admission, was a perfect picture, and showed in the same field numerous crescents, ring-formed pigmented parasites, pigmented leucocytes, and leucocytes containing one, two, and even three, red corpuscles and parasites. The urine contained a slight trace of albumen, probably due to a stricture, which necessitated the urine being drawn off by a No. 4 catheter on the 26th. Under quinine, both hypodermically and by the mouth, stimulants, and free purging, the patient slowly improved, and the temperature, which rose daily from 101° to 103° , dropped to normal on the 30th without any further rise. The speech, however, continued thick and indistinct for some time, and he told us "he couldn't remember the right words." This latter condition, which distressed the patient very much, gradually improved under small doses of iodide of potassium and arsenic, though there was an occasional hesitancy for a word now and then. The blood slide taken on the 2nd January (48 hours after the temperature fell to normal) was quite free from any malaria. Patient was discharged quite well on the 21st January.

ENCLOSURE 1.

HONG KONG,
1900.TABLE I.—Return of DISEASES and DEATHS in 1900 at
VICTORIA GAOL HOSPITAL, Hong Kong.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza	7	—	
Dysentery	21	—	
Plague	2	—	
Malarial Fever—			
(a.) Intermittent, type un- diagnosed.	54	—	
(b.) Remittent	82	—	
Beri-beri... ..	5	—	
Erysipelas	7	—	
Syphilis, Primary	12	—	
Gonorrhœa	4	—	
Alcoholism	3	—	
Rheumatism	8	—	
New Growth, non-malignant ...	2	—	
Anæmia	3	—	
Debility	40	1	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Functional Nervous Disorders—			
Paralysis	1	—	
Epilepsy	3	—	
Carried forward ...	254	1	

HONG KONG,
1900.Table I.—Return of diseases and deaths in 1900 at Victoria
Gaol Hospital, Hong Kong—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	254	1	
LOCAL DISEASES— <i>cont.</i>			
Mental Diseases, Dementia ...	12	—	
Diseases of the Eye	6	—	
" " Ear	4	—	
Diseases of the Circulatory System.	76	2	
" " Respiratory System.	16	2	
" " Digestive System.	52	—	
" " Lymphatic System.	8	—	
" " Urinary System	5	—	
" " Cellular Tissue	3	—	
" " Skin	1	—	
Local Injuries	7	1	Fatal case was Cere- bral Hæmorrhage, due to a fall.
Parasites... ..	6	—	
Under observation	55	—	
Total	505	6	

TABLE II.—Shewing the RATE of SICKNESS and MORTALITY HONG KONG, in VICTORIA GAOL during the Year 1900.

Total Number of :—				Daily Average Number of :—			Rate per Cent. of :—			
Prisoners admitted to Gaol.	Admissions to Hospital.	Cases, including Skin Diseases, treated in the Cells.	Deaths due to Disease.	Prisoners in Gaol.	Sick in Hospital.	Sick not in Hospital.	Admissions to Hospital to Total Admissions to Gaol.	Daily Average Number of Sick in Hospital to Daily Average Number of Prisoners.	Daily Average Number of all Sick in Gaol to Daily Average Number of Prisoners.	Deaths due to Disease to Total Admissions to Gaol.
5,432	495	1,523	6	486	13.31	30.00	9.11	2.74	8.91	0.11

TABLE III.—Shewing the NUMBER and RESULTS of VACCINATIONS in VICTORIA GAOL during the past Ten Years.

Year.	Number of Prisoners Vaccinated.	Successful.	Un-successful.	Not inspected, owing to early discharge from Gaol.	Number of those Vaccinated who showed Marks of previous Vaccination.
1891	2,836	1,090	1,346	—	2,521
1892	2,625	1,985	640	—	2,618
1893	1,417	763	654	—	1,325
1894	747	242	505	—	746
1895	942	455	487	—	941
1896	831	631	200	—	831
1897	2,830	1,678	1,016	136	2,410
1898	4,507	2,875	1,252	380	4,181
1899	3,378	2,004	1,063	311	3,069
1900	2,638	1,765	666	207	1,916

HONG KONG, TABLE IV.—Shewing GENERAL STATISTICS connected with
1900. VICTORIA GAOL and the GAOL HOSPITAL during the past
Ten Years.

Year.	Admissions to the Gaol.	Daily Average Number of Prisoners.	Number of Cases treated in Hospital.	Number of less serious Cases, in- cluding Skin Diseases, treated in the Cells.	Deaths due to Disease.
1891	5,231	507	364	558	8
1892	5,046	515	312	723	6
1893	4,010	458	272	523	2
1894	3,913	455	271	614	5
1895	5,014	472	231	948	7
1896	5,582	514	507	740	10
1897	5,076	462	342	455	4
1898	5,427	511	298	1,033	6
1899	4,789	434	503	1,778	5
1900	5,432	486	495	1,523	6

ENCLOSURE II.

(Extract.)

Tung Wah Hospital,

Hong Kong,

9th January, 1901.

I have the honour to submit for the information of His Excellency the Governor the Annual Report of the Tung Wah Hospital for the year 1900.

I resumed the duties of Inspecting Medical Officer on my HONG KONG,
return from leave on the 11th May. During my absence 1900
Dr. Lowson acted for me.

The number of patients in the wards at the beginning of the year was 154; 2,981 were admitted during 1900, making a total of 3,135 cases treated; 1,743 were discharged; 1,267 died; leaving 125 in the hospital on the evening of 31st December.

The admissions during the past ten years have been as follows:—

1891	...	...	...	2,514
1892	...	...	...	2,455
1893	...	...	...	2,255
1894	...	...	...	2,354
1895	...	...	...	2,732
1896	...	...	...	2,041
1897	...	...	...	2,776
1898	...	...	...	2,898
1899	...	...	...	2,542
1900	...	...	...	2,981

Of the 2,981 admissions, 1,720, or 57·7 per cent., were under Chinese native treatment; 953, or 32 per cent., were treated by Dr. Chung according to European methods; and 308, or 10·3 per cent., were transferred to other institutions for treatment, as follows:—14 to Government Civil Hospital, 63 to Kennedy Town Infective Diseases Hospital, 220 to the Tung Wah Plague Branch Hospital at Kennedy Town, 8 to the Lunatic Asylum, and 3 to the Italian Convent.

In the previous year, Dr. Chung treated 556 out of a total of 2,542 admissions, *i.e.*, 21·8 per cent.; so that there is in 1900 a marked increase in both the number of patients admitted to the hospital and the proportion of patients availing themselves of European treatment.

With reference to the large mortality, it is necessary to have in mind the fact that the Tung Wah Hospital is used as a sort of dying house by the lower orders of the Chinese community. 347 of the fatal cases were already in a dying condition at the time of admission, and many others were hopeless from the first, including such conditions as advanced phthisis, heart disease, the general debility of old age, and cachexia due to malaria, the opium habit, or neglected wounds and abscesses.

HONG KONG, 1900. TABLE I.—Return of DISEASES and DEATHS in 1900, at TUNG WAH HOSPITAL, Hong Kong.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Small-pox	2	—	
Measles	1	—	
Mumps	1	—	
Influenza	12	—	
Diphtheria	1	1	
Enteric Fever	16	15	
Cholera	1	1	
Dysentery	49	29	
Plague	401	116	
Malarial Fever—			
(a.) Intermittent, Type un- diagnosed.	172	3	
(b.) Remittent	364	147	
(c.) Pernicious	12	9	
Beri-beri... ..	407	214	
Erysipelas	5	1	
Septicæmia	16	15	
Tetanus	10	8	
Tubercle... ..	10	6	
Leprosy, Tubercular	2	—	
Syphilis, Secondary	58	17	
Rheumatism	44	—	
New Growth, non-malignant ...	4	2	
„ malignant	10	2	
Carried forward ...	1,598	586	

Table I.—Return of Diseases and Deaths in 1900, at Tung Wah Hong Kong, Hospital, Hong Kong—*continued*. 1900.

Diseases	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,598	586	
GENERAL DISEASES— <i>cont.</i>			
Anæmia	32	8	
Debility	52	30	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-Section 1.			
Meningitis	16	14	
Sub-Section 2.			
Functional Nervous Disorders—			
Apoplexy	19	17	
Paralysis	53	27	
Epilepsy	3	—	
Hysterica	1	—	
Sub-Section 3.			
Mental Diseases—			
Mania	4	—	
Melancholia	4	—	
Dementia	4	—	
Delusional Insanity	3	—	
Diseases of the Eye	11	—	
" " Nose	1	—	
" " Circulatory System.	69	36	
Carried forward ...	1,876	718	

HONG KONG, Table I.—Return of Diseases and Deaths in 1900, at Tung Wah Hospital, Hong Kong—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	1,876	718	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Respiratory System.	525	378	
" " Digestive System.	257	126	
" " Lymphatic System.	29	2	
" " Urinary System	63	27	
" " Male Organs ...	4	—	
" " Female Organs	7	—	
" " Organs of Locomotion.	30	5	
" " Cellular Tissue	90	2	
" " Skin ...	86	—	
Injuries, General ...	5	1	
" Local ...	168	7	
Poisons ...	1	1	Opium.
Total ...	3,135	1,267	
Surgical Operations ...	...	...	Already classed under the respective conditions requiring operations

TABLE II.—Shewing GENERAL STATISTICS relating to the TUNG WAH HOSPITAL during the Year 1900.

Patients.	Remaining in Hospital on 31st December, 1899.	Admitted.	Total Cases Treated.	Discharged.	Deaths.	Remaining in Hospital on 31st December, 1900.	Out- Patients.	Vaccinations.	Destitute persons sheltered.	Dead Bodies brought to Hospital Mortuary for burial.	Free Burials provided for poor persons.
Male ..	127	2,503	2,630	1,475	1,045	110	66,563	609	887	385	—
Female ..	27	478	505	268	222	15	28,192	714	—	120	—
Total ..	154	2,981	3,135	1,743	1,267	125	94,755	1,323	887	505	2,134

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TABLE III.—Shewing VACCINATIONS at, and in connection with, the TUNG WAH HOSPITAL during the Year 1900.

Hong Kong.	Shaikiwan.	Aberdeen.	Stanley.	Yau-nati.	Hung-hom.	Total.
1,214	36	20	23	17	13	1,323

HONG KONG,
1900.

HONG KONG,
1900.

ENCLOSURE III.

Return of CAUSES of DEATH ascertained by POST-MORTEM
EXAMINATION in 1900, at the GOVERNMENT PUBLIC
MORTUARY, Hong Kong.

Diseases.	Deaths.	Remarks.
GENERAL DISEASES.		
Small-pox	15	
Measles	1	
Diphtheria	1	
Enteric Fever	29	
Cholera	1	
Dysentery	4	
Plague... ..	45	
Malarial Fever, pernicious	739	
Beri-beri	29	
Septicæmia	6	
Tetanus	15	
Syphilis—		
(a.) Secondary	1	
(b.) Inherited	4	
Starvation	21	
New Growth, non-malignant	1	
Rickets	1	
Debility	11	
Carried forward	924	

Return of Causes of Death at the Government Public Mortuary, HONG KONG,
Hong Kong—continued. 1900.

Diseases.	Deaths.	Remarks.
Brought forward ...	924	
LOCAL DISEASES.		
DISEASES OF THE NERVOUS SYSTEM.		
Sub-section 1—		
Diseases of the Nerves—		
Meningitis	7	
Sub-section 2—		
Functional Nervous Disorders—		
Apoplexy	1	
Diseases of the Circulatory System	61	
„ „ Respiratory System	151	
„ „ Digestive System	180	
„ „ Urinary System ...	5	
„ „ Female Organs ...	1	Ectopic Gestation.
Injuries, General	132	Drowning, 104; Suffocation, 24; Hanging, 3; Strangulation, 1.
Injuries, Local	49	
Poisons	8	Opium, 5; Gelsemium, 3.
Still-birth	125	
Decomposed	77	Decomposition too far advanced to allow the cause of death to be ascertained.
Total	1,721	

JOHN C. THOMSON, M.D., M.A.,

Inspecting Medical Officer,

NEGRI
SEMBILAN,
1900.

No. 13.

NEGRI SEMBILAN.

REPORT ON THE MEDICAL DEPARTMENT, 1900.

I.—GENERAL.

Vital Statistics.

1. The population, estimated as 82,678 on 1st January, 1900, was, on the 31st December, 89,088, an increase of 6,410 (*see Appendix A**).

2. On this basis, and compared with 1899, the mean birth-rate has risen from about 15 to 25 per 1,000. The rate among Malays has risen from 34 to 37; among Europeans and Eurasians from 15 to 20. It has fallen among Indians from 13 to 10, and is about stationary among Chinese. Detailed figures are furnished in Appendix B.*

Death-rate.

3. The mean rate for all classes, 26 per 1,000 in 1899, rose to 38 per 1,000. The increase has affected all classes of the population. That among Europeans and Eurasians has more than doubled, among Chinese it has nearly doubled (28-52), among Indians more than doubled (68-144), among Malays, however, the rate shows little increase (24-26).

4. I am inclined to lend less credence to the reality of these disturbances among Eurasians, &c., and Chinese, than may be given to the same changes as affecting Malays and Indians. The movements of the former classes are so inaccurately checked that the errors affecting calculations from this cause alone must be very large.

The early part of the year was marked by a great deal of fever, which more than decimated the Tamil coolies imported in connection with railway extension. Among the Malays the same factor will have had its influence, and I believe the returns regarding this section of the population to be fairly reliable.

* * * * *

* Not reprinted,

8. Among the causes of death (Appendix F.*) recorded (3,325 in number), the principal were fever, which accounted for a little over, and dysentery and bowel complaints a little under, one-quarter of the whole mortality each; beri-beri and infantile disorders were equal in influence (150 out of 1,000 deaths each), while accidents caused about as many deaths as pulmonary diseases (67 and 59 per 1,000).

9. As to the causes of mortality specially affecting different races, it appears that among Chinese fever and bowel diseases were about equally fatal, accounting together for 611 out of every 1,000 deaths. Accidents (129) account for more deaths than any other separate cause after these two. Beri-beri was responsible for 107 only, and pulmonary diseases for 92 deaths per 1,000.

Among Malays, the principal assigned causes of death were, in order of gravity, fever (219), bowel complaints (168), beri-beri, dropsy, and paralysis (155), infantile diseases (114), pulmonary (55).

Among Indians, the order was—fever (389), bowel complaints (259), infantile diseases (198), dropsical diseases (among which beri-beri is extremely rare) (213). The dropsical diseases of Tamils are for the most part results of malaria.

10. As regards ages: among different races the mortality under five years is least among Malays (101 per 1,000 deaths). It is 193 among Tamils. In the group "other races" the rate is 897, which is truly enormous. Of these last deaths 474 are recorded as under 1 year, and 423 between 1-5 years. As I pointed out last year, this terrible rate of infantile mortality is almost entirely among the Eurasian community, among whom it surely indicates great and reprehensible neglect of their children. The actual figures show 20 deaths recorded in this group, out of a total of 31 at all ages in this class.

11. Compared with the previous year (1899), the tables show that as regards the fatality of diseases, fever has been less fatal among all classes; dysentery and allied bowel complaints have caused about the same proportion of deaths among the population taken as a whole. Among the Chinese the mortality from the latter cause has increased by 35 per cent., among Malays it has decreased by 25 per cent., among Tamils by 9 per cent. Beri-beri and other diseases causing dropsy and paralysis have become more prevalent, affording nearly double the absolute mortality among Chinese, notwithstanding that the severity of the type (as shown by the case mortality in the hospitals) is extremely low—far below any previous record. Among Malays its influence has also extended.

12. The analysis for this year confirms the statement I made in my last report, that this disease produces more deaths among Malays than any other section of the population.

* Not reprinted.

NEGRI
SEMBILAN,
1900.

13. The deaths placed in this group among Tamils show enormous increase (213 out of every 1,000 deaths in 1900, as compared with 15 in 1899). But, as I have already mentioned, in the case of Tamils the disorder signified is not beri-beri, but a form of dropsical anæmia and debility, usually the result of fever. It is unfortunate that diseases so widely different should have had to be classed together; but the object was to group together whatever reports could be held to indicate beri-beri, and in respect to Chinese, Malays, and other races than Indians, clinical experience shows that the proportion of other diseases causing these symptoms among them is insignificant. As regards Tamils, however, experience affords the opposite conclusion. Among them dropsical symptoms are only exceptionally due to beri-beri. It is too early a day to hope for very accurate information from natives as to the causes of death. But grouped on the broad lines which I have drawn, and scrutinised by the light of knowledge gained clinically, I think that the general inferences which these figures afford are not open to any great fallacy.

14. The conclusion may be drawn therefore that beri-beri spreads yearly more widely, while its fatality becomes less. If, as I have sought to show elsewhere, the disorder be due to nothing else than the eating of rice, which certain influences have rendered toxic, the facts detailed are susceptible of explanation. The disease will be more prevalent the more easily and more rapidly supplies of poisoned grain are distributed. It will become more poisonous the slower its consumption and the longer it is kept, and consequently exposed to the influence which produces its toxicity. When transport facilities become increased, as happens with the better development of the country, supplies are more frequently renewed; while with increased prosperity actual consumption increases. Again, the toxic change, which may be surmised to be due to some form of mould or germ-fermentative process taking place in the grain, should be favoured by rainy seasons, conditions of penury, and restricted facilities for or neglect of proper dry storage of the grain. And, in the absence of counteracting factors, beri-beri should be most prevalent when the grain stocks in the country have become oldest and run most low—*i.e.*, at the end of the old, or just before the new, harvest seasons.

15. During the past year most of these conditions have occurred. Increasing trade and prosperity, increasing transport facilities, have led to wider consumption, and doubtless more frequent renewal of grain supplies; the rice consumed has been generally newer and less toxic. Instances will doubtless have occurred forming exceptions to the conditions demanded by this theory, the principal arguments for which are based, however, upon considerations which need not be set forth here.

16. Small-pox broke out in Johol and Sri Menanti during the last part of the year; but did not gain any hold. A case also occurred in Seremban. The infection in both these outbreaks was introduced from Malacca.

17. To malaria (pernicious, remittent, or tropical fever) was due the death of Mr. H. W. Bathurst, the Collector of Land Revenue. This officer lived in a bungalow all the previous and subsequent occupants of which have had severe attacks of the same disorder. The house was one in a new clearing, badly infested with mosquitos. I identified anopheles there once only, and have been unable to discover any actual breeding grounds nearer than half a mile. But as the smallest of surface puddles suffices for growth of the larvæ of this insect, no doubt nearer sources of origin exist which have escaped the search.

18. Rinderpest has been prevalent throughout the State during the year. Experiments as to the production of serum for protection, still in process, are the subject of a separate report. A supply of the serum used by Dr. Turner so successfully in South Africa was received and shown to retain powerful protective properties when used on native and Siamese neat kine. For buffaloes, however, its effects were less potent: but it has been shown that effective protection can be secured by the use of larger doses of the serum than were required in South Africa. The work now in hand is the production of similar serum locally both from kine and from buffalo.

II.—PUBLIC SANITATION AND HYGIENE.

19. Absolutely nothing has been done in any of the directions in which I tendered advice to Government last year for the improvement of the sanitary needs of the State, or the hygienic requirements of the service.

* * * * *

22. The Berembun hills . . . afford the driest climate in the Peninsula, and almost every gradation of temperature from 70° to 50° at different altitudes and are remarkably easy of access—far more so than any other hill resort in the States. Sanatoria might be built on these ranges which would admirably serve the needs of this State, of Selangor, of Malacca, and Singapore. I feel sure that once these hills have been opened up by Government initiative the public will not be slow to resort to a station offering what is practically a temperate climate without the trouble and expense of a long journey.

III.—HOSPITALS.

23. The number of cases treated by the department shows a slight decrease, 11,505, as compared with 12,199 in the year preceding.

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24. In-patients numbered 1,101 more than the previous year (5,016, as against 3,915), an increase of 19 per cent.

25. Out-patients decreased by 1,703, or 26 per cent. below the previous year.

26. The mean case mortality for all hospitals was 6·29 per cent., the rate being lowest at the Beri-beri Hospital, Port Dickson (4·03 per cent.), and highest at Seremban General Hospital (7·44 per cent.). The latter institution has received an unusually large number of broken-down immigrant coolies from the railway extension works and estates.

Relative Frequency of Disease.

27. The disorders principally treated were, in order, beri-beri, fever, ulcers, diarrhoea, debility, and dysentery.

28. The relative mortality of the diseases treated was diarrhoea 36 per cent., dysentery 20 per cent., debility 12 per cent., anæmia 8 per cent.

29. All these rates are higher than those occurring last year. This increase in mortality is again referable to the Tamil immigrant element swelling the number of the patients at Seremban, the rates for other races, and at other hospitals, not having risen in any such ratio. Beri-beri shows the lowest mortality, 2·74 per cent., which has been recorded, while deaths from malarial fever were only 1·62 per cent.

30. Of the in-patients, 72 per cent. were Chinese, 24 per cent. were Tamils, 1·61 per cent. were Malays, and 1·87 were of other nationality.

Seremban General and Pauper Hospital.

31. Admissions 2,634, mortality 7·44 per cent. At this hospital over one-third of all cases treated were Tamils, chiefly immigrants in railway employ. Among this class the mortality was very heavy. They were generally admitted suffering from the worst results of chronic malaria, anæmia, debility, dropsy, or from intractable, severe, and chronic bowel complaints.

At none of the district hospitals, except Kuala Pilah, did the admissions of Tamils form so much as one-tenth of the total admissions, and at that station they are less than one-fourth of the whole.

* * * * *

33. The Apothecary, quite useless for his work, was recommended for retirement, and is still, after ten months, in process

of removal. Meanwhile, I have had no qualified assistant upon whom I could place any reliance.

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34. On the other hand, my dressers have, within their limitations, proved capable of learning and deserving of promotion.

Seremban Gaol Infirmary.

35. Sickness rate 16·9 per mille, mortality of cases treated 5·08 per cent. In all seven prisoners died, two suddenly at night (of beri-beri cardiac angina), three in the infirmary, and two after removal to the General Hospital for more adequate treatment. None of these deaths were due to any morbid influence specially connected with the institution.

Beri-beri Hospital, Port Dickson.

36. Admissions 635, mortality 3·9 per cent. A great increase in admissions and decrease in mortality, which last year was 8·47 per cent.

37. A new mortuary is in process of erection here, but neither well nor fencing have been provided, though badly required.

38. R. Vallipuram, the dresser in charge, has discharged his duties well.

Jelebu Hospital.

39. Admissions 522, mortality 5·55 per cent. Admissions have increased by 60 per cent., while the mortality has decreased by nearly 2 per cent. As elsewhere, beri-beri has been little fatal at this hospital, while dysentery and diarrhoea have been gravely so. An unusual and prolonged dry season resulting in the use of dirty water, owing to the restriction of supplies, may be responsible for the latter event. There has been a large increase in the number of out-patients treated at this hospital, the management of which reflects credit on the dresser in charge, P. P'Chient.

Kuala Pilah Hospital.

40. Admissions 741, mortality 4·31 per cent. The admissions are about the same as last year, the mortality higher by 1·23 per cent. The dresser in charge, Mr. R. Van Geyzel, was detailed for six months to assist in the rinderpest inoculation experiments, in which he ably assisted me. A new dispensary and office are still needed here very badly.

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Tampin Hospital.

41. Admissions 415, mortality 7·22 per cent. The mortality has increased in this hospital by 2·97 per cent., no less than six of the 30 deaths recorded being due to fever, for the malignancy of which Tampin has always had unenviable notoriety. Five deaths were due to beri-beri, eight to bowel complaints, four to lung diseases, and three to phagedæna ulcers. The dresser in charge was R. T. Frankford.

Port Dickson Dispensary.

42. At this institution 782 cases were treated as out-patients.

IV.—VACCINATION.

43. 2,786 vaccinations were performed with the buffalo lymph supplied from Saigon. This number is greatly below that dealt with last year (6,073), but still the amount greatly exceeds the annual births recorded, showing that the proportion of adults still remaining unprotected is being steadily, if slowly, reduced. The percentage of reported failures, 2 per cent., was greatly less than last year (8 per cent.).

V.—METEOROLOGICAL.

44. The usual returns accompany this report (Appendices N and O). The year was unusually dry at Seremban and still more so at Jekebu. At the Coast, on the other hand, usually the driest district, the rainfall recorded (95½ inches) was higher than anywhere else, and 26 inches more than in 1899.

The mean temperature at Seremban was 82° F., the maximum and minimum shade temperatures 92·4° F. and 60° F., respectively.

45. The form of return desired by the Government for transmission to the Colonial Office, and 16 Appendices,* are attached to this report:—

- (1) A. Statistics of Population for 1900.
- (2) B. Birth, Death, and Sickness Rates.
- (3) C. Composition of Population.
- (4) D. Annual Mortality from different Diseases.
- (5) E. Actual Deaths.
- (6) F. Analysis of all Deaths.
- (7) G. Number of Cases of Beri-beri.

* Appendices not printed.

- (8) H. Number of Sick Convicts.
- (9) I. Different Nationalities treated as In-patients.
- (10) J. In-patients treated in various Hospitals.
- (11) K. Diseases more commonly treated.
- (12) L. Out-door Patients treated.
- (13) M. Return of Vaccination for 1900.
- (14) N. Abstract of Rainfall "
- (15) O. Meteorological Return "
- (16) P. Expenditure "

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46. In respect to the former a word of warning must be given. The return as it stands represents the combined hospitals of the State, and as the diagnosis in many cases rests on the opinion of unqualified dressers, it cannot but be that there must be many inaccuracies. In especial is this the case with regard to the very important section of malarial fevers. The return as it stands is, I am sorry to say, completely worthless, as regards the types of fever met with. I have been unable as yet to thoroughly instruct the dressers or to provide them with proper means for the differentiation of the various forms of malaria. They consequently base their judgments on the course chiefly of the temperature, and classify the cases under the terms which appear to them to suit the appearances of the chart.

As, however, the older terminology of fevers is to a large extent based on quite factitious distinctions, and the classifications of malarial fevers upon any other basis than the appearances of the parasites under the microscope is (even in the best hands) often mistaken, the effect of this error may be regarded as of no great importance. In my own experience, at Seremban General Hospital, cases of simple intermittent fever, tertian or quartan, are rare, quartans extremely so. I have not been able to identify the parasite described as "quotidian." The infection is in almost all cases by a parasite which most closely agrees with that described as the malignant or pernicious tertian "the æstivo-autumnal" form of Galgi, Celli, and others.

In the record of cases as sent in by my dressers and apothecaries there was not a single case entered as "pernicious remittent," yet I should myself probably return all but 1 or 2 per cent. of all the cases I have observed as belonging to this class. At Seremban General Hospital the examination of the blood is made systematically for diagnosis, and at that institution 380 out of 408 cases belonged to this class, which I prefer—in the absence of certainty as to the identity of the parasite with the malignant tertians of Europe—to designate as "tropical fever."

W. L. BRADDON,
State Surgeon.

RETURN of the STATISTICS of POPULATION of NEGRI SEMBILAN for the YEAR 1900.

				Europeans and Eurasians.	Chinese.	Malays.	Tamils.	Others.
Number of inhabitants in 1899	...	...	...	770	26,130	153,437	2,259	82
" Births during the Year 1900	...	...	...	18	111	2,045	29	8
" Deaths	"	"	1900	6	1,426	1,450	418	25
" Immigrants	"	"	1900	458	9,598	3,385	2,259	—
" Emigrants	"	"	1900	196	5,442	2,021	617	—
" Inhabitants in 1900	...	...	...	1,044	2,897	55,396	3,512	65
Increase	...	...	...	274	2,841	1,959	1,253	—
Decrease	...	...	...	—	—	—	—	17

METEOROLOGICAL RETURN OF SEREMBAN, NEGRI SEMBILAN, for the YEAR 1900.

	Temperature.						Rainfall.		Winds.	
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.
January	149	68	90	60	21	82	5.42	87	N.E.	Not Recorded.
February	152	68	91	63	28	81	5.79	85	N.E.	
March	148	65	89	62	26	82	11.63	91	S.E.	
April	150	62	92	55	29	82	6.65	91	S.E.	
May	148	64.6	91.2	61.9	29.2	83	7.02	93	S.W.	
June	148.3	64.3	92.4	62.2	29.2	86	10.00	93	S.E.	
July	148.3	63	92.6	63.7	30.1	85	4.56	93	S.E.	
August	146.8	64.8	91.5	65.1	30.3	85	4.76	93	S.E.	
September	145	66	90	65	27.1	84	7.76	92	S.E.	
October	143	65	84	66	24	80	10.52	91	S.E.	
November	148	66	86	62.2	19	82	9.27	92	N.E.	
December	142.8	65	86.4	65.2	26.1	81	3.63	90	N.W.	

NEGRI
SEMBILAN,
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NEGRI
SEMBILAN,
1900.

RETURN of DISEASES and DEATHS in 1900 at the following
INSTITUTIONS :—SEREMBAN, PORT DICKSON, JELEBU,
KUALA PILAH and TAMPIN HOSPITALS.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Small-pox	1	—	
Febricula	18	—	
Dysentery	219	44	
Beri-beri	1,749	48	
Malarial Fever—			
(a.) Intermittent—			
Quotidian	332	6	
Tertian	31	1	
Irregular	36	—	
Type undiagnosed ...	14	2	
(b.) Remittent	24	—	
(c.) Pernicious E., "Tropical" Fever.	365	4	
Phagedæna—			
(a.) Sloughing	34	3	
Erysipelas	5	—	
Leprosy --			
(a.) Tubercular	10	—	
Syphilis—			
(a.) Primary... ..	11	—	
(b.) Secondary	55	—	
Gonorrhœa	11	—	
Carried forward ...	2,915	108	

*Seremban Hospital, &c.—cont.*NEGRI,
SEMBILAN,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	2,915	108	
GENERAL DISEASES—cont.			
Alcoholism	1	—	
Rheumatism	109	2	
Anæmia	75	6	
Debility	238	30	
Other Diseases	26	4	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 2.			
Paralysis	2	—	
Bed-sore	1	1	
Epilepsy... ..	2	—	
Neuralgia	16	—	
Sub-section 3.			
Delusional Insanity	27	—	
Other Diseases of the System...	1	1	
Diseases of the Eye—			
Conjunctiva—			
Conjunctivitis	19	—	
Cornea—			
Ulceration	3	—	
Carried forward ...	3,435	152	

NEGHI
SEMBILAN,
1900.

Seremban Hospital, &c.—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3,435	152	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Eye— <i>cont.</i>			
Iris—			
Glaucoma	1	—	
Other Eye Diseases	2	—	
Diseases of the Ear—			
Inflammation... ..	4	—	
Diseases of the Circulatory System—			
Membranes—			
Pericarditis	3	—	
Other Diseases of the System	1	—	
Diseases of the Respiratory System—			
Bronchi—			
Bronchitis	87	4	
Asthma	7	—	
Lung—			
Hæmoptysis	2	—	
Pneumonia	13	5	
Phthisis	40	22	
Pleura—			
Pleurisy	3	—	
Other Diseases of the System	1	—	
Carried forward ...	3,599	183	

Seremban Hospital, &c.—cont.

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 SEMBILAN,
 1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3,599	183	
LOCAL DISEASES—cont.			
Diseases of the Digestive System—			
Mouth—			
Stomatitis	2	1	
Fauces—			
Tonsilitis	2	—	
Stomach—			
Dyspepsia	6	—	
Intestines—			
Hernia	1	—	
Constipation	15	—	
Diarrhœa	312	113	
Rectum and Anus—			
Hemorrhoids	2	—	
Liver—			
Cirrhosis	7	3	
Jaundice	3	—	
Peritoneum—			
Peritonitis	2	2	
Ascites	7	2	
Other Diseases of the System	12	—	
Carried forward ...	3,970	304	

NEGRI
SEMBILAN,
1900.

Seremban Hospital, &c.—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3,970	304	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Lymphatic System—			
Spleen—			
Splenitis	29	—	
Bubo	7	—	
Diseases of the Urinary System—			
Kidney—			
Bright's Disease	7	2	
Hæmaturia	1	—	
Diseases of the Generative System—			
Prepuce—			
Phimosis	1	—	
Paraphimosis	1	—	
Penis—			
Soft Chancre	5	—	
Scrotum—			
Sloughing Scrotum ...	1	1	
Testicle—			
Orchitis	7	—	
Other Diseases (Male) ...	2	—	
Uterus—			
Dysmenorrhœa	1	—	
Carried forward ...	4,032	307	

*Seremban Hospital, &c.—cont.*NEGRI
SEMBILAN,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	4,032	307	
LOCAL DISEASES— <i>cont.</i>			
Disease of the Organs of Locomotion—			
Bones—			
Ostitis	1	—	
Periostitis	1	—	
Joints—			
Synovitis	1	—	
Muscles—			
Myalgia	1	—	
Other Diseases	3	1	
Diseases of the Connective Tissue—			
Cellulitis	16	—	
Abscess	52	—	
Gangrene	4	1	
Diseases of the Skin—			
Eczema	11	—	
Psoriasis	28	—	
Ulcer	664	3	
Carbuncle	2	—	
Other Diseases	5	1	
Carried forward ...	4,821	313	

NEGRI
SEMBILAN,
1900.

Seremban Hospital, &c.—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	4,821	313	
INJURIES.			
Local—			
Wounds	158	2	
Fractures, simple	3	—	
Do. compound	2	—	
Other Injuries	11	—	
SURGICAL OPERATIONS	5	1	
PARASITES.			
Ascaris Lumbricoides	11	—	
Acarus Scabiei	3	—	
Other Parasites	1	—	
Under Observation	1	—	
Total	5,016	316	

No. 14.

NORTHERN
NIGERIA.
1900-01.

NORTHERN NIGERIA.

MEDICAL REPORT ON THE PROTECTORATE OF
NORTHERN NIGERIA, APRIL 1st, 1900, TO MARCH
31st, 1901.

The general health of the Europeans during this period shows an improvement on former periods, but the death-rate is still abnormally high. There is no doubt that more suitable houses, healthier modes of living, and improved hygiene are having their due effect, but I do not anticipate that the death-rate will reach its normal line for several years yet.

During the twelve months there were 262 admissions into the hospital, compared to 334 during the twelve months of 1900, being a decrease of 72; 32 cases were invalided home, as against 37, of whom four died on the way home. There were nine deaths in the Protectorate, as against 14 in 1901.

The average population has been somewhat difficult to arrive at, owing to a fairly large floating population, composed of Boundary Commissions, Missionary Expeditions, Ashanti War, and various European traders passing to and fro, but 165 is, I think, a fair mean.

I have not added the four deaths at sea from disease contracted in the Protectorate in the percentages, but note should be taken of the fact.

The rainy season of 1900 produced the usual abnormal rise (septennial) of the river. The highest point reached was 35 feet, which is ten feet higher than normal. The overflow was very great, and enormous damage to property ensued, in many cases whole villages being swept away. The Jebba Island was divided into two by the flood and all the lower part submerged. Communication with Port Ilorin and the North Camp was both difficult and dangerous, and several natives lost their lives owing to the capsizing of canoes. Contrary to former experiences, there was no great increase in sickness when the water fell, although a great part of the island was temporarily converted into swamp.

The sanitary condition of the Protectorate is, under the circumstances, good. Surface drainage has been carried on, all holes where water could accumulate are being filled in, and proper arrangements have been made for the disposal of sewage.

NORTHERN
NIGERIA,
1900-01.

At Lokoja, which was formerly very overcrowded, the streets are being widened and insanitary dwellings pulled down.

The water supply has greatly improved, as a large condenser has been installed at Lokoja and a plentiful supply of pure drinking water thus obtained. The soda-water plant is now in use in this place and excellent aerated water provided.

At Jebba the water for the inhabitants of Port Ilorin is procured from a spring which gives a plentiful supply of good drinking water all the year round. This water is very slightly ferruginous. On the island the rainwater is collected in tanks which are properly covered and sealed.

Wherever military stations exist the Officer Commanding is instructed to see that the town refuse is burned once a week, and the streets brushed. During a residence of some months in the military province of Borgu in 1900, when I visited the principal posts, I found this was being done, and great credit is due to the various officers concerned for their diligence.

Several cases of oedema of the feet and legs have been treated among Europeans during the year. A certain amount of lassitude has accompanied this symptom, but in no case were the kidneys or heart affected, and the patients in other respects seemed to be healthy. Whether true beri-beri is making its appearance in the Protectorate remains to be seen. During seven years' residence in the Niger Territories I have only seen two similar cases. The medical staff are using every means to arrive at a proper diagnosis of the disease.

During the year there were outbreaks of small-pox at the following places:—Boussa, Yelwa, Semaji, and Wushishi. These outbreaks required special energy to cope with them, as there is continual communication with Jebba and these places by means of carriers, escorts, and native traders. All cases were immediately isolated and re-vaccination carried on. I am happy to report that each outbreak was successfully dealt with, and I wish to draw attention to the excellent work done by the medical staff in this respect, often under very trying conditions. Dr. Thompson contracted the disease at Boussa. It is very unusual for Europeans to contract small-pox, but I saw Dr. Thompson at Boussa and was able to confirm his diagnosis.

There has been a very marked diminution in the number of cases of blackwater fever, from 23 in 1899, to eight in the year April 1st, 1900, to March 31st, 1901. This is due to the fact that there has been no clearing and digging of ground on a large scale, and also that the conditions of living are much improved.

EDWARD E. CRASTER,

Acting Principal Medical Officer,

Northern Nigeria.

METEOROLOGICAL RETURN.

*Temperature.*NORTHERN
NIGERIA,
1900-01.

Months.	Shade Maximum.	Shade Minimum.	Mean.
April, 1900	107	71	87
May "	105	67	86
June "	99	63	77
July "	106	68	86
August "	94	70	82
September "	96	70	79·8
October "	104	70	85
November "	103	73	86
December "	100	62	81
January, 1901	90	60	75
February "	98	62	76
March "	102	64	85·9

STATISTICS OF POPULATION.

Europeans.

Number of Inhabitants during period April, 1900, to March, 1901	165
Number of Deaths during period April, 1900, to March, 1901	10
Number of Inhabitants during period January, 1899, to March, 1900	145
Increase in Population	20
Death-rate per 1,000	60·9
Invalided	32
Died on voyage to England	4
Death-rate per 1,000 in 1899	92·1
Decrease	32·9

NORTHERN
NIGERIA,
1900-01.

RETURN of DISEASES and DEATHS during the PERIOD
APRIL, 1900—MARCH, 1901, at the following INSTI-
TUTIONS :—JEBBA HOSPITAL, LOKOJA HOSPITAL.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Dysentery	5	1	Four invalided.
Malarial Fever—			
Remittent	200	4	Blackwater. Fourteen invalided.
Pernicious	10	1	Nine invalided.
Beri-Beri	1	—	
Debility	4	—	Two invalided.
Diarrhoea	4	—	
Hepatitis	2	—	
Acute Gastritis...	4	1	
Enteritis... ..	2	—	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM—			
Diseases of the Nerves—			
Sub-section 1.			
Congestion of Brain... ..	1	1	
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	4	1	
Diseases of the Ear	2	—	Otitis
Carried forward ...	239	9	

*Jebba Hospital, Lokoja Hospital—cont.*NORTHERN
NIGERIA,
1900-01.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	239	9	
LOCAL DISEASES—cont.			
Diseases of the Circulating System.	2	—	Functional disease of heart, two, invalided.
" " Respiratory System.	2	—	Pleurisy, Catarrh.
" " Lymphatic System.	2	—	Tonsilitis, Inf. parotid Gland.
" " Male Organs ...	2	—	Urthritis, retention of Urine.
" " Organs of Locomotion.	1	—	Arthritis.
" " Skin ...	3	—	Psoriasis 2, Boils 1.
INJURIES.			
General ...	10	—	
Total ...	261	9	

MEDICAL REPORT FOR THE PROTECTORATE OF
NORTHERN NIGERIA FROM 1st JANUARY, 1900,
TO 31st MARCH, 1900.

The general health of Europeans during this period was fair and appears to be improving, the number of admissions, 91, contrasting well with the 135 of the corresponding period of 1899, and also being 20 less than the preceding quarter.

Nine cases were invalided home, and five died, as against twenty and five respectively during the corresponding period of 1899.

Estimated population (European) ...	...	175
Death-rate per 1,000 ...	...	22·85

NORTHERN
NIGERIA,
1900-01.

January 1st saw the inauguration of the Protectorate, and up to the present little has been or could be done to remedy the insanitary condition of the large towns. Wherever Europeans, however, are quartered, roads have been made, extensive patches of ground cleared from bush, surface drains dug, and the erection of suitable bungalows proceeded with.

Statistics of diseases and deaths amongst the native population are not obtainable, but attached is a brief return of the natives of the West African Frontier Force.

It is gratifying to note the decrease in the record of black-water fever. In the first three months of 1899, 16 cases occurred, of which number two died, nine were invalided, and five returned to duty. In the corresponding months of 1900, eight were admitted, of which number two died, four were invalided, and two remained in hospital on 31st March.

W. H. LANGLEY, A.P.M.O.,

West African Frontier Force.

Jebba,

29th December, 1900.

RETURN OF DISEASES AND DEATHS DURING JANUARY
FEBRUARY, AND MARCH, 1900, IN NORTHERN NIGERIA.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Malarial Fever	64	2	
Blackwater Fever	8	2	
Hæmorrhoids	2	—	
Cystitis	1	—	
Phthisis	2	—	
Ulcer	1	—	
Carried forward ...	78	4	

Northern Nigeria—cont.

NORTHERN
NIGERIA.
1900-01.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	78	4	
GENERAL DISEASES—cont.			
Injury to Foot	1	—	
Inflamed Glands of Neck ...	1	—	
Constipation	1	—	
Varioloid	1	—	
Sore Throat	1	—	
Wound	1	—	
Rheumatism	1	—	
Jaundice	1	—	
Beri-Beri	1	—	
Dysentery	1	—	
Gastritis	1	—	
Disordered Action of Heart ...	2	—	
Wounds, Arrow	2	—	
Syncope	1	1	
Phlebitis	1	—	
Total	95	5	

NATIVES.*West African Frontier Force.*

Remained in Hospital, 31st December, 1899 ...	51
Admitted	370
Died	12
Total cases treated in Hospital	421
Remaining in Hospital, 31st March, 1900 ...	62

Europeans.

Number of Inhabitants during 1st Quarter of 1899	145
" " " " 1900	175
Deaths	5
Increase in Population	30

Temperature.

Month.					Shade Maximum.	Shade Minimum.	Mean.
January	...	...	...	...	100	62	81
February	...	...	...	...	104	69	86
March	...	...	...	...	109	74	91

No. 15.

PAHANG,
1900.

P A H A N G .

THE PAHANG MEDICAL REPORT FOR 1900.

RETURN OF THE STATISTICS OF POPULATION, METEORO-
LOGY, &c., FOR THE YEAR 1900 :—

RETURN of the STATISTICS of POPULATION for the YEAR 1900.

State of Pahang.	Europeans and Whites.	Africans.	* East Indians.	Chinese and Malays 8,690-72,774.	† Mixed and Coloured Aborigines 7,120.	Total.	Remarks.
Number of inhabitants in 1900 ...	134	1	1,253	81,464	567	83,419	Census total of 1901.
" Births during the year 1900	2	Nil	8	1,169	5	1,184	Incomplete records.
" Deaths " "	1	Nil	70	2,590	1	2,662	
" Immigrants " "	—	—	—	—	—	—	No returns kept.
" Emigrants " "	—	—	—	—	—	—	
Number of inhabitants in 1899 ...	76	N.R.	N.R.	62,924	10,000	73,000	Figures unreliable.
Increase or ...	—	—	—	—	—	—	Not recorded on account of the unreliability of the figures.
Decrease ...	—	—	—	—	—	—	

* East Indians includes Sikhs, Tamils, and Singhalese.

† Mixed and coloured includes Eurasians, Arabs, Aborigines, and others.

MEAN METEOROLOGICAL RETURN for the YEAR 1900.
From Records taken at the Kuala Lipis, Raub and Pekan Hospitals.

	Temperature.						Rainfall.		Winds.		Remarks.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January	N.R.	N.R.	91.2	67.3	23.9	79.2	8.26	N.R.	N.R.	N.R.	No records with regard to solar temperature, degree of humidity, and prevailing winds were kept. The shade maximum temperature for the year was 96° F. recorded at Pekan and Kuala Lipis. The shade minimum, 62.5° F. at Pekan. The mean rainfall for the year was 122.4 inches. The greatest fall during 24 hours was 6.18 inches recorded at Pekan.
February	—	—	91.7	66.7	25.0	79.2	7.29	—	—	—	
March	—	—	92.8	67.2	25.6	80.0	10.60	—	—	—	
April	—	—	92.8	67.2	25.6	80.0	8.98	—	—	—	
May	—	—	92.0	68.0	24.0	80.0	12.65	—	—	—	
June	—	—	93.0	68.3	24.7	80.6	8.22	—	—	—	
July	—	—	91.2	69.0	22.2	80.1	6.61	—	—	—	
August	—	—	93.0	69.2	23.8	81.1	3.61	—	—	—	
September	—	—	93.7	70.3	23.4	82.0	11.28	—	—	—	
October	—	—	91.8	71.5	20.3	81.6	11.79	—	—	—	
November	—	—	92.1	70.6	21.5	81.3	23.49	—	—	—	
December	—	—	92.5	69.1	23.4	80.8	9.63	—	—	—	
Mean	N.R.	N.R.	92.3	68.7	23.6	80.5	10.20	N.R.	N.R.	N.R.	

PAHANG,
1900.

PAHANG, RETURN OF DISEASES and DEATHS in 1900 at the following INSTITUTIONS :—GENERAL HOSPITAL, KUALA LIPIS ; GAOL HOSPITAL, KUALA LIPIS ; DISTRICT HOSPITALS, RAUB and PEKAN, and the BENTONG DISPENSARY.

Diseases.	Yearly Total.		Remarks.	
	Cases.	Deaths.		
GENERAL DISEASES.				
Small-pox	1	—	This Return includes both in-patients and out-patients. The numbers of the out-patients are given in thick figures It does not include the numbers of the small-pox epidemic referred to in the Report.	
Measles	3	—		
	1	—		
Influenza... ..	1	—		
Dysentery	122	17		
	167			
Malarial Fever :—				
(a.) Intermittent	Quotidian	286		—
	Tertian ...			
	Quartan...			
	Irregular			
Type un-	970			
diagnosed.				
(b.) Remittent	73	7		
Beri-beri	158	18		
	375			
Erysipelas	2	—		
Leprosy—				
(a.) Tubercular	1	—	A mixed case.	
Syphilis	2	—		
	46	—		
(a.) Primary	2	—		
(b.) Secondary	7	1		
Carried forward ... }	657	43		
	1,560	—		

General Hospital, Kuala Lipis, &c.—cont.

PAHANG,
1900.

Diseases.	Yearly Total		Remarks.
	Cases.	Deaths.	
Brought forward ...	657	43	
	1,560	—	
GENERAL DISEASES—cont.			
Gonorrhoea	12	—	
	101	—	
Alcoholism	2	—	
Rheumatism	35	—	
	263	—	
New Growth, non-malignant...	1	—	Lipoma of cord removed by operation.
New Growth, malignant ...	1	—	Madura foot removed by operation.
Anæmia	82	7	
	203	—	
Debility	29	3	
	164	—	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Diseases of the Nerves—			
Neuritis	1	—	Alcoholic
Carried forward ...	820	53	
	2,291	—	

PAHANG,
1900.

General Hospital, Kuala Lipis, &c.—cont.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	820	53	
	2,291	—	
LOCAL DISEASES—cont.			
Diseases of the Nervous System—cont.			
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	1	1	
Paralysis	1	—	
Epilepsy	1	—	
Neuralgia	5	—	
	152	—	
Sub-section 3.			
Mental Diseases—			
Idiocy	—	—	This Return does not include the two cases of Idiocy, four of Mania, two of Melancholia, and three in which the type was not diagnosed which were under observation in the Gaols.
Mania	—	—	
Melancholia	—	—	
Dementia	—	—	
Delusional Insanity	—	—	
Diseases of the Eye	6	—	
	114	—	
" " Ear	88	—	
" " Nose	8	—	
" " Circulatory System.	4	—	
	42	—	
Carried forward ...	838	54	
	2,695	—	

General Hospital, Kuala Lipis, &c.—cont.

PAHANG,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward...	838	54	
LOCAL DISEASES—cont.	2,695	—	
Diseases of the Respiratory System.	55	4	
	290	—	
" " Digestive System.	126	10	Includes 85 cases of diarrhoea.
	873	—	
" " Lymphatic System.	26	—	
	120	—	
" " Urinary System.	4	—	
	60	—	
" " Generative System.	2	—	
" " Male Organs ...	9	—	
	70	—	
" " Female " ...	36	—	
" " Organs of Locomotion.	5	—	
	73	—	
" " Cellular Tissue.	57	2	
	203	—	
" " Skin... ..	28	1	Includes ulcer.
	838	—	
Carried forward...	1,150	71	
	5,258	—	

PAHANG,
1900.*General Hospital, Kuala Lipis, &c.—cont.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward...	1,150 5,258	71 —	
INJURIES.			
General	24 147	2	General injuries, included among in-patients simple fractures of humerus, radius, scapula, elbow joint and fracture-dislocation of spinal column; compound fractures, three of arm, one forearm and one jaw, as well as many sprains and contusions.
Local	40 280	3	Local injuries included among in-patients one dislocation of hip as well as incised, lacerated and contused wounds and two multiple injuries. Among out-patients sprains, contusions, and boot sores.
SURGICAL OPERATIONS	—	—	Surgical operations; many minor operations were performed, also one amputation of leg, one removal of tumour, and one operation for ankylosis of knee-joint.
POISONS	3 5	— —	Poisons, as in-patients, by stramonium, opium and snake-bite; as out-patients by mercury, opium, dog bite, two, snake bite, one.
Carried forward...	1,217 5,690	76 —	

*General Hospital, Kuala Lipis, &c.—cont.***PAHANG,**
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ... {	1217	76	Parasites taenia solium one, the remainder ascaris lumbricoides.
	5,690	—	
PARASITES {	1	—	
	92	—	
Total {	1,218	76	
	5,782	—	

PAHANG MEDICAL REPORT FOR 1900.

It is proper to premise some remarks at the commencement of this report, as to the small degree of confidence with which the three Pahang returns may be regarded.

This statement is made not with a view of criticising the method of arrangement. The excellence of the tables, and of the motive which led to their introduction are fully admitted, but it is no disparagement of either to say that if the Pahang returns are to be regarded as an addition to medical science, much more is wanted to render them perfect. Otherwise, the scientific value of the figures will be more apparent than real.

The statistics of Population Return contains certain information which is compiled from the Annual Report of the Registrar of Births and Deaths. There are only five Deputy Registrars in Pahang. They are much occupied with other duties and their returns have to be submitted in English to the Medical Department as early as possible in the New Year. The information is gathered, under their supervision, from native policemen

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and native chiefs in accordance with the provisions of an elaborate Enactment which has been in force for only two years. These vital statistics, which should be the very essence of sanitary science, are of necessity imperfect under these conditions. They are unreliable with regard to age and the causation of death in many cases. The Return of Births is evidently incomplete. The Meteorological Return has been compiled, for the purposes of this report, from observations taken by the dressers at the District Hospitals.

It is unreliable because it is evident from the mistakes that have been found in some of their returns that little regard has been paid by some of them to ordinary accuracy.

Corrections have been made by the common sense view of what has been required or by writing for explanatory information, but trouble has often arisen from change of the officers concerned to other States.

The bulk of the Nosological Return has been sent in by the three unqualified dressers from the district hospitals, and although their figures have been extracted from the detached returns and totalled with care and no pains spared to give the conclusions arrived at as much clearness and correctness as possible, the accuracy of the diagnosis cannot be depended upon for this reason. Knowledge must precede diagnosis, and in the ordinary course of things the Pahang dressers must be taught before they can be made capable of strictly adhering to the requirements of the Model Medical Report. The time has passed when utter ignorance of everything but his immediate study is thought essential to the character of an independent hospital dresser. In Pahang he is the local doctor, and should be a better qualified man capable of thinking and of appreciating the advantages of his position. The lack of scientific training is deplorable. Entertaining this professional opinion, which few it is believed will controvert, it is not gratifying to know that no means have been adopted in Pahang since 1898 to supply qualified assistance. Scientific interest has had to yield to practical financial considerations. To state more on this subject might be unbecoming, to state less would be unjust. My Annual Report to the British Resident, in which the administrative statements have been separated at the expense of much labour, has, by permission, been attached as a supplement to this Report. The hospital statistics contained therein are approximately correct, but only the data which seems to me to be at all reliable are given in the Model.

In the Appendix, the paper "Remarks on a case of Leprosy" is republished after revision. It originally appeared in the *Lancet* of 3rd March, 1900. "Notes on a case of Amok" was read at the Medical Congress of the Federated Malay States in November, 1900. It has also been revised.

1. ESTIMATED POPULATION FOR THE YEAR 1900. BIRTHS. DEATHS. BIRTH-RATE PER 1,000. DEATH-RATE PER 1,000. COMPARISON WITH PREVIOUS YEAR.

PAHANG,
1900.

The Census of 1901 gives the number of the population as 83,419, otherwise it would have been estimated by chance as 73,000 for 1900. This is the first time that any exact idea of the population has been arrived at. It has not been possible, therefore, to make any remarks concerning increase or decrease of population.

With regard to emigration and immigration no reliable State statistics are kept. It is known, however, that about 1,200 Chinese sinkhehs were employed in the State during the year 1900.

The births which have been registered in 1900 number 1,184, as compared to 1,240 for the previous year. It is probable that many births have not been registered. Little or no information regarding births and deaths among the Sakai, or wild men, can be obtained. They probably contribute over 8,000 to the total number of the rural population. A total of 7,799 has been accurately estimated by the Census.

The deaths which have been returned number 2,662, as compared to 1,479 in 1899. A part of this increase depends on a more accurate system of counting.

The approximate birth-rate for 1900 is 15·51 per mille living; the approximate death-rate (all causes) 34·88 per mille living. 255 deaths under one year of age were registered, making an approximate infantile mortality of 3·34 per mille.

2. PREVALENCE OF SICKNESS IN THE DIFFERENT SEASONS OF THE YEAR, AND GENERAL CHARACTER AS TO THE MILDNESS OR SEVERITY OF THE DISEASES PREVAILING.

The seasons of the year can only be roughly divided, as in the two former reports, into the more rainy or north-east monsoon season—from October to March—and the drier or south-west monsoon—from April until September. The general equality of temperature which is peculiar to Pahang has been maintained. Prevailing diseases were malarial fever, beri-beri, and dysentery, as in former years. From the records of the monthly nosological returns of the Government hospitals at Kuala Lipis, Pekan, and Raub, these sicknesses, taken together, seem to have prevailed more especially during the drier months of the year. There were 346 in-patients against 293 during the north-east monsoon. But beri-beri was evidently more prevalent, as far as these three returns go, during the north-east monsoon time—89 cases against 69.

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Malarial fevers grouped together occurred in the proportion of 208 cases during the south-west monsoon, against 151 in the north-east, and dysentery 69 cases for the same period, against 53 in the north-east monsoon.

The general feature of the prevalent malarial fever was intermittent in character—286 in-door cases as compared to 73 cases of a remittent character.

Beri-beri, speaking generally, was of the wet variety. In certain places, especially at the large alluvial tin workings at Bentong, mixed cases of a very severe and fatal type were very common. Special reference to the mortality among Chinese at this mine is made in the report to the British Resident attached as a supplement.* The occurrence of several fatal cases in which there was aphonia from paresis of the laryngeal muscles is worthy of notice.

The kind of dysentery most commonly met with throughout the State was of the catarrhal variety.

3. RELATIVE MORTALITY IN THE DIFFERENT SEASONS.

It is difficult to determine what relation the seasons have to the mortality in Pahang, partly because they are so ill-defined and partly for reasons with regard to the nosological and death returns, upon which the facts are based, which need not be referred to again. So much similarity exists as compared to the two preceding years that there is little under this heading to call for special remark.

According to the hospital statistics at Kuala Lipis the mortality from all causes was 21 in each instance, but taking the three hospitals together a greater mortality occurred during the north-east monsoon, 43 deaths against 33. The approximate registration of deaths for the State was 1,222 in the north-east monsoon, against 1,440 in the south-west. This was apparently the general effect of the seasons at each station. In the Pekan district, however, an analysis shows that 371 deaths occurred in the north-east monsoon, as compared to 353 in the south-west.

The total number of deaths from beri-beri in the private hospitals at Bentong and Kuantan was about the same during the north-east monsoon as in the south-west.

At Bentong, 94 deaths against 93, and 33 against 34 at Kuantan. These were the chief places at which this disease was notably prevalent.

Deaths from dysentery were more frequent during the drier season.

* Page 266.

There was an extraordinary exemption of death from tubercle, or at least from diseases designated as tubercular; no admissions to hospital under this heading were recorded. There are also no recorded cases of enteric fever. This disease never seems to have prevailed to any extent in Pahang, as far as my personal observation goes, during the last five years.

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4. METEOROLOGICAL CONDITIONS OF THE SEASONS, AND THEIR PROBABLE EFFECT WITH REGARD TO SICKNESS. OTHER CAUSES OR CONDITIONS AFFECTING THE PUBLIC HEALTH.

In the case of Pahang, in order to ascertain the influence of climate on health, it is desirable to consider the temperature of the seasons and the rainfall separately. The climate is both hot and damp.

Month after month passes in which the mean temperature is at or about 80° F., the range about 23°, and the rainfall, more or less, about 10 inches.

Meteorological observations were taken in 1900 at seven different stations. They radiated from Kuala Lipis (with regard to distance as the crow flies) as follows:—Kuala Tui (Bukit Kubu) 9 miles, Raub 30 miles, Bentong 48 miles, Sungei Lembing 65 miles, Kuantan 89 miles, Pekan 99 miles.

The geographical position of Kuala Lipis is Latitude 4° 11' north, and Longitude 102° 4' east. It is situated at the junction of two large rivers, being about 100 feet above sea level.

Bukit Kubu is situated near a small river north-west of Kuala Lipis.

Raub is approximately 340 feet above sea level, and Bentong 350. Pekan and Kuantan are on the sea coast, practically at sea level; Kuantan is about 20 miles north of Pekan. Sungei Lembing lies in a narrow valley about 40 miles from the mouth of the Kuantan river. Temerloh is half way between Pekan and Kuala Lipis. All the stations lie east of the main range of mountains, but Kuantan and Pekan, being practically on a flat coast line, are much more exposed to the sudden violence of the north-east monsoon than the inland towns of Kuala Lipis, Raub, and Bentong. Temerloh is less sheltered. The stations are so far apart that it is difficult, even if the records of the six months' seasons were strictly accurate, to apply the probable effect of their meteorological conditions to any medical problem affecting the State as a whole. Taking the whole of Pahang, the mean temperature of the north-east monsoon may be said to be about the same as that of the south-west monsoon. According to the records of the three Government stations at Kuala

PAHANG, Lipis, Pekan, and Raub, the mean temperature for the south-west monsoon was 80·6° F., and that for the north-east monsoon 80·5° F. A considerable difference exists as a rule, however, between the total rainfall in each season.

In 1900, the contrast was much less, being a difference of 10·7 inches as compared to that of 19·4 inches in the rainy season of 1899. It is a great pity that the degree of humidity has not been recorded.

There are occasional storms of wind and rain, but a feature of the climate is the constant number of rainy days. Taking the whole State, the average number for the month in 1900 was 11 rainy days.

At the Kuantan and Bentong tin mines a greater number of beri-beri cases was admitted into the private hospitals during the months of the north-east monsoon. At Bentong there were 133 cases from October to March, as compared to 101 cases from April to September, and 145 at Kuantan, as compared to 76.

With the exception of small-pox there has been an immunity for some years from zymotic disease. No serious epidemic of Asiatic diseases has occurred since 1896, but the climate of Pahang cannot be said to be favourable to health on this account. A great portion of the State is still in a state of nature, almost all of it is thickly covered with vegetable and organic matter in a vigorous state of growth or rapid decomposition.

The general healthiness of the population, under these conditions, is really remarkable, but whatever effect the equability in temperature of the seasons may have in this respect, it is very evident that it has in some respects a detrimental effect. The Pahang Malays are habitually indolent. The continuous heat and dampness affects the health of even the most active European residents.

Young men of little original power as well as men of middle age become incapable of laborious duty after a time, and are easily susceptible to the most common form of sickness. Sooner or later they contract malarial fever, often so slight as to require a few days on the sick list, little treatment, and scarcely any confinement, sometimes so severe as to require change of climate. It is much to be regretted that, even after attacks of severe fever when convalescence is slow and uncertain, the exigencies of the service do not always allow them to take the leave which is so necessary for their recovery.

A very rough list of the Europeans who have died in Pahang during the last eleven years enables me to say that three Government officers have died in the State, as well as 18 other resident Europeans, from tropical diseases. The degree of warmth and moisture of the climate is very favourable to the prevalence of parasitic skin diseases, especially *tinea marginata* or *dhobie itch*.

in the case of some Europeans. This disease has no natural tendency to cure and is often very refractory to treatment. Several varieties of ringworm, such as *tinea circinata*, *tinea imbricata*, and *tinea versicolor*, and many pustular skin diseases, such as ordinary scabies, also "water-itch," are very common among the native population. The fairly common occurrence of leucoderma among Malays may also be mentioned here, although probably it is not influenced by climate.

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5. REMARKS ON PARTICULAR DISEASES THAT HAVE RECURRED DURING THE YEAR.

The particular disease in Pahang about which so much interest centres is beri-beri. It recurs year after year, especially in the large tin-mining districts, always causing a heavy mortality among the coolies, and seldom sparing the sinkheh or new arrival from China. The origin of this disease is not yet known, but there is reason to suppose that there are many predisposing factors in the aetiology. One of them seems to be an initial attack of fever due (in certain instances) to reductive changes of temperature. Among the sinkhehs at the mines, a preliminary attack of fever is a very common precursory symptom. These coolies are often men of little constitutional vigour who live, mess, and sleep together in crowded sheds. They work under contract and are easily fatigued in a new climate by the manual labour which is required of them. The nature of their employment frequently takes them, often very inadequately clothed, perhaps perspiring freely, into the open air at midnight, or during the very early hours of morning. They go from a heated and debilitating atmosphere to what may be a really cold, always a comparatively cold, atmosphere, and frequently indulge in, or are compelled to take, cold baths in the streams at these early hours as well as often throughout the day. It is not unreasonable to suppose that a chill or a succession of slight chills caught when the air is charged with moisture, may contribute to the causation of febrile attacks. And, if beri-beri is prevalent at the time, it may account, in some measure, for the predisposition which the ignorant men of this particular class have for this disease. They regard excessive cold bathing as a direct preservative of their health, but it seems that they cannot indulge in it, with impunity, to the same degree with which the Malay native can.

It is a very remarkable fact that the total Chinese population of Pahang only forms one-tenth of the whole, and that the sinkheh labourers are stricken with beri-beri to a high degree.

The only aliens who appear to be exempt are the Sikhs, and, speaking generally, the European residents, Malays and Tamils suffer far less in proportion.* Proofs are yet wanting to justify any conclusions as regards the influence of diet and rainfall.

* In Ulu Pahang 8 Tamils and 23 Malays only were treated for beri-beri from the Raub and Kuala Lipis hospitals.

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With regard to animals, it has been noticed in Japan that dogs may apparently contract beri-beri, and it is interesting to note, in connection with this, that, at Bentong, where beri-beri was very prevalent in 1900, ducks apparently succumbed to the disease in large numbers. In the Dutch East Indies, Eyckmann has also apparently found this disease in hens.

Malaria was caused by the malignant parasite, and, as far as my limited observation in Pahang went, during the year under review, it was generally found (in the blood of native patients examined at Kuala Lipis) to be due to the so-called unpigmented parasite of Mannaberg. On 24th October an anopheles mosquito was caught at the gold mine at Kichau, and two others during the next month at the Tui River gold mine. At Kichau, malarial fever was very prevalent. The mosquitos were comparatively small insects, adult females in each case having the characters of *anopheles pictus* rather than a *pseudo-pictus* as described by Giles. They were caught in the evening in the managers' private houses. Search was made in other parts of the Ulu Pahang district without success.

There were, as there have been for many years, a certain number of cases of leprosy in Pahang. It is difficult to determine the facts as to the alleged increase of this disease. The present number does not constitute a public danger, and does not appear, in itself, to be a matter which calls for special legislation in Pahang. Power to restrict the liberty of action of certain lepers, however, may be necessary in certain cases, for example, when the leper should happen to be a midwife, shop-keeper, or public prostitute. Rules made under the Malay States Leper Asylum Ordinance, 1900, will meet these and other cases in future.

6. GENERAL SANITARY CONDITION OF THE STATE. SANITARY STATE OF THE CHIEF TOWNS WITH REFERENCE TO DRAINAGE, WATER SUPPLY, OVERCROWDING, &c.

The general sanitary condition of the State as regards the towns may be said to have been slightly improved in one or two instances. The practice of hygiene as a separate division of the science of medicine was recognized by the Government in 1898 by the formation of Sanitary Boards. Some By-laws were passed in 1900 and confirmed by the British Resident. The actual and potential causes of the prevailing diseases are so complex, however, that much more assistance is required by the Sanitary Boards before they can cope with even the elementary factors in the causation of these diseases. Special precautions are always taken in the case of epidemics or threatened epidemics.

Brick drains are being placed in the main street of the Kuala Lipis town, but the drainage of the native towns in general is

indifferently accomplished by means of mud drains, which, through want of natural facilities, too often degenerate into filthy ditches.

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The faulty topographical features of the townships of Raub and Pekan renders any efficient method of draining them very difficult. There are no natural facilities at the Raub town which has been built upon the made ground of a reclaimed swamp. Cultivation and the removal of jungle growth through extensive mining operations has helped to render the air and soil at Raub much drier than it might otherwise have been and to check the ill effects of ground vapours.

At Pekan there is practically no fall to facilitate natural drainage. The town is built on the bank of a large river and is very liable to be flooded year after year. The soil is of clay; it is very damp, and but little cultivated.

Generally in Pahang it is not difficult to find abundant water, but in some towns it is not always easy to obtain a proper supply. At Raub, in spite of this, the town has steadily grown and the difficulties have much increased. The present water-supply is mainly from shallow wells and small streams, but much care and labour have been spent in trying to procure a better supply from the hills. It is intended to store a sufficient quantity by means of reservoirs.

Setting aside the effects on health, anyone who understands the habits of Malays can appreciate the benefit of this necessity. Their desire for abundance of water is very great. The convenience to the rest of the inhabitants need not be stated.

At Kuala Lipis, for a similar reason with regard to a local increase of population, the difficulty is in finding means to carry a proper supply of water to the dwelling houses from the river.

Speaking generally, the towns are by no means overcrowded. The houses, as a rule, contain a minimum number of rooms of small size which may in itself prevent overcrowding when compared to larger rooms in which the mixing of the sexes would be greater.

Nuisances of this class are mostly to be met with in the small shops which are sublet and overcrowded either from want of means necessary to procure other accommodation or from motives of greed in overcrowding them with lodgers. Continuous ventilation by means of windows is often wanting. The sanitary condition of the one-storied Malay houses in the villages is bad as well as that of the coolie lines at the mines. Refuse and rubbish of all kinds are generally allowed to accumulate daily underneath Malay huts, which are invariably raised from the ground, and about the coolie lines at most of the mines.

PAHANG, 1900. 7. THE VACCINATIONS PERFORMED DURING THE YEAR, AND THE CONDITION OF THE POPULATION IN RESPECT OF PROTECTION FROM SMALL-POX.

Of the many improvements which have taken place within the last six years in the medical practice, none is to be compared with that effected by vaccination against small-pox, because none approach it in magnitude and importance. Prior to 1896, there were only 13 cases of vaccination recorded in the Annual Reports. In 1900, the total has reached 16,081; of these, 3,588 were performed during this year, with a successful percentage of 94·3. The vaccinations were performed almost universally amongst the Malays in the different districts of the State, and it may be said that their confidence has been entirely gained in this respect. Male children between the ages of six and seven years are now fairly well protected. It has not been possible to attempt to vaccinate on antiseptic principles. Disasters, however, have been very rare, but false keloid has been known to affect the scars in a few cases. In one instance, this disease, being probably due to the action of a micro-organism, attacked two sisters, who were Kuantan Malays, aged 18 and 19 years. The scars attained the size of florins and bear the characteristic claw-like prolongations.

It is hoped that Pahang will soon be as well, if not better, protected than the most favoured of the other States. Re-vaccination will then be attempted on a larger scale than is being done at present.

8. OTHER OBSERVATIONS, IF ANY, REGARDING THE HEALTH OF THE INHABITANTS.

The ratio of mortality for patients treated in the Government hospitals was 60·2 per mille, which, although higher than in the preceding year, is not high in itself when it is remembered that many natives, especially Chinese, delay coming to hospital until almost all chance of their recovery has passed, and many of them obstinately refuse surgical treatment by operation until their lives are in immediate danger. It is not too much to say, also, that many of them are so destitute that they are driven in by privation in order to obtain nourishing food.

The ratio of mortality for the State was estimated at 34·88 per mille, which is higher than the 20·2 per mille of the preceding year.

Though there was a great deal of beri-beri in the year 1899 at Bentong, there was little of the severe type which prevailed in 1900. The mortality consequently increased accordingly, for

there are strong grounds for concluding that whenever beri-beri of a severe type prevails there will be, without under-rating the value of the right treatment, great loss of life, especially with regard to new arrivals of the coolie class.

An account of the interesting occurrence of zinc poisoning among the men of the Sikh Regiment, referred to in my report to the British Resident attached, will probably be submitted in the Appendix for the Model Report for 1901.

A note-worthy case of Madura foot in a Malay boy was under treatment at the close of the year. This disease had not hitherto been suspected in Pahang, nor indeed in the patient until shortly before operation. It was a case of about four years' duration and presented the typical features of the most common form of Mycetoma. The foot having become useless was removed with the withered leg by amputation below the knee joint. The dry bones were subsequently found on examination to be much rarefied, channeled, and very friable.

The health of the younger Malay children is very much disturbed by the almost universal way in which they suffer from intestinal parasites, especially *ascaris lumbricoides*. Adult Malays appear to suffer very little, in proportion, from intestinal parasites.

It seems that the national habit of eating the "sirih" leaf and seed of the betel nut palm (*areca catechu*), as well as the general abstinence from pork, may account for the comparative rarity with which grown-up Malays are affected. The health of workers in jungle produce may be affected, in certain districts, by Rengas poisoning through contact with the fresh sap of certain trees belonging to the order *Anacardiaceæ*. A very acute weeping dermatitis may be set up as well as constitutional disturbance in those who are specially susceptible to this poison. Wood-cutters are also liable to poisoning by inoculation with the fresh juice of the Ipoh or Upas tree (*antiaris toxicaria*), although as a matter of fact, this accident is of rare occurrence. The resin, however, is very deadly, and is still used by the aborigines to poison their various darts and arrows, but it is a mistake to suppose that the influence of this tree is sufficient of itself to cause the death of birds or people sleeping under its branches. It is much more reasonable to suppose that the tree may have grown in poisonous marshes and that the origin of the legend was due to the lethal effects of marsh gas or other poisonous gases which were generated in the vicinity.

JOHN D. GIMLETTE,
Acting Residency Surgeon.

Kuala Lipis,
20th April, 1901.

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PAHANG, SUPPLEMENT TO THE PAHANG MEDICAL REPORT
1900.
FOR 1900.

ANNUAL REPORT TO THE BRITISH RESIDENT.

ADMINISTRATION.

Pahang was left for nine months in charge of a single Surgeon in 1900. This, I believe, is without parallel since the year 1890.

Five unqualified dressers assisted the Surgeon in charge, with one unqualified assistant dresser. A clerk was appointed to the department for the first time. Two dressers subsequently applied for transfer to other States, another was taken seriously ill, and the fourth was committed to gaol for misappropriation of Government money.

The Residency Surgeon left the State at the close of 1899, very seriously ill from the tension caused through want of clerical and clinical assistance. A great responsibility was thrown on Dr. D. H. McClosky, who was the only Surgeon left in the State.

Having only recently taken up the duties of Acting Residency Surgeon, I am not able to make any personal criticism on the work of 1900. Speaking of the department as a whole, there can be no doubt that it was undermanned and its staff much overworked. In consequence, the subordinates had no proper opportunity of studying or of keeping abreast with recent advances in the practice of medicine and surgery. The time of the Surgeon in charge seems to have been wholly engrossed by his clinical duties. He had a great deal to do besides attending to the sick, and could not properly organise or superintend the hospitals in a State which is 14,000 square miles in extent. Three unqualified dressers, on small salaries, were left in independent charge of large districts, 40, 70, and 200 miles away from headquarters. The result was that the hospital administration suffered, but the dressers do not appear to have neglected their patients or to have shown indifference to their sufferings. The good-will with which they and the clerk have worked can only excuse, to my mind, the ignorance, forgetfulness, and carelessness which have been displayed in some of their official returns and records.

HOSPITALS AND DISPENSARIES.

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2. The Government hospitals were the general hospital at Kuala Lipis (headquarters) and the district hospitals at Raub and Pekan, as in former years. The only Government out-door dispensary was at Bentong. In addition, two private hospitals were maintained, as heretofore, one by the Pahang Corporation under the direct supervision of their Medical Officer, Dr. Widmer Rolph, M.D.; the other was a Chinese institution, the so-called "Toong Shoon" hospital, a hot-bed of disease, which still existed on Mr. Loke Yew's property at Bentong.

A dispensary, in charge of an unqualified native dresser, was kept at Panggong by the Penjum Mining Company.

The accident hospital of eight beds at Selensing, which had been instituted by the Malayan (Pahang) Exploration Company, Limited, in 1898, was closed early in the year 1900.

Coolies in the employ of the mining companies at Raub, Liang, Kuala Tui, and Kichau were treated as paying patients in the native wards of the Government hospitals at Raub and Kuala Lipis respectively.

The State hospitals contained 78 beds, viz., 48 at Kuala Lipis, 12 at Raub, 18 at Pekan. The private hospitals at Kuantan afforded indifferent accommodation for 65 cases; at Bentong there was very bad accommodation for a number of patients. The "Toong Shoon" hospital accommodated 20, but was often overcrowded. The Kuantan and Bentong hospitals were under Government supervision; they will, it is hoped, both be re-built and under Government administration during the coming year.

At the close of 1900, owing to building operations at headquarters, 12 beds were deducted from the total mentioned above and a temporary shed was erected to relieve the distress which would otherwise have resulted.

Number of In-door Patients treated.

3. The number of in-door patients admitted into the general hospitals was 1,172, against 1,021 in 1899. The figures in the table below show the actual number of in-patients treated at each Government hospital. The total was 1,218, against 1,075 in 1899:—

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Hospitals.	Patients in hospital on 1st January, 1900.	Admitted.	Discharged, relieved, or cured.	Died.	Absconded.	Transferred.	Remaining in hospital on 31st December, 1900.
Kuala Lipis ...	34	712	646	42	20	1	37
Pekan ...	6	142	133	6	—	—	9
Raub ...	6	318	280	28	1	1	14
Total ...	46	1,172	1,059	76	21	2	60

Records of the Private Hospitals.

At the private hospitals 1,153 admissions were recorded, with 466 deaths. A total of 636 (including those remaining from last year), with 125 deaths, from Sungei Lembing. A similar total of 208, with 68 deaths, from Kuantan. The totals include 135 cases of beri-beri, but the percentage of deaths from this cause has not yet been returned.

At the Chinese hospital at Bentong, 365 patients were treated, with 273 deaths. Three hundred and sixty of these were Chinese coolies, the remainder being Tamils. The health of the Sinkhehs, or newly imported coolies, at Bentong, was exceedingly bad. The younger Chinese immigrants generally succumbed to beri-beri, of a severe type, after three months' exposure in this locality. Although due allowance may be made for exceptional circumstances, such as poor physique, want of acclimatisation, traditional belief in Chinese medicine, etc., the death-rate was very high in the "Toong Shoon" hospital. It was 74·7 per cent. for deaths due to all causes.

It is fair to state, however, that only the most serious cases of disease were brought into this hospital; 86 died within 24 hours of admission. It is sad to record that five men died on their way to the hospital in January. Their deaths were not included in the hospital return for this month; 21 patients died inside the building during the same month. The total percentage of deaths of the diseases most commonly treated in this hospital was as high as 80 per cent.; there were 260 deaths out of 325 cases.

In detail, the average percentages were for beri-beri, 79·9 per cent. (187 deaths out of 234 cases); diarrhœa, 84·6 per cent. (22 deaths out of 26 cases); dysentery, 90·0 per cent. (27 deaths out of 35 cases); and malaria, 24 deaths out of 35 cases, or 68·5 per cent. These figures are truly appalling.

Taking the records of the Chinese hospital and kongsis together, 444 immigrants are reported to have died at Bentong in 1900, out of an estimated population of about 2,000 men.

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Deaths.

5. The deaths in the State hospitals numbered 76, as compared with 63 in 1899, the percentage being 6·2 against 5·8 in 1899. Many of these deaths occurred within 24 hours of admission.

An English miner died at Kuala Lipis from pneumonia following fever; another European from an accident at Kuala Pahang.

The ratio per cent. of deaths which occurred within the Government hospitals from lethal prevailing diseases, in their order of frequency, was as follows:—from malaria, 1·9; from beri-beri 11·3; from dysentery 13·9. The total deaths among in-patients included, at Kuala Lipis, 29 Chinese (from beri-beri 6, anæmia 5, diarrhœa and dysentery each 4, phthisis, malaria, and local injury each 2, ulcer, pneumonia, syphilis, and peritonitis each 1). As well as 8 Tamils (from diarrhœa 3, malaria and dysentery 2 each, and beri-beri 1). With 3 Sikhs (1 from dysentery, 1 from malaria, 1 from anæmia and debility).

At Raub, 21 Chinese (from beri-beri 10, dysentery 4, malaria, diarrhœa, and abscess each 1, injury 2, and heart disease 2). As well as 5 Tamils (4 from dysentery and 1 from heart disease), and 2 Malays from dysentery.

The returns from Pekan under this particular heading have not yet been received.

At Bentong 186 Chinese died of beri-beri, and 1 Tamil; 25 of dysentery, and 2 Tamils; 21 of diarrhœa, and 1 Tamil. The remaining Chinese which make up the total, died, of malarial fever 10, heart disease 4, phthisis 2, ulcer, disease of liver, and malarial cachexia.

Prevailing Diseases.

6. The prevailing diseases treated in the Government hospitals were malarial fever (359), beri-beri (158), dysentery (122), and diarrhœa (85). No special cure was attempted for beri-beri and the death-rate was low, viz., 11·3, although higher than last year when it was 9·9, excluding the statistics from the private hospitals. Twelve patients were treated in the European ward

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at Kuala Lipis, 8 for malarial fever, 2 for dysentery, 1 for beri-beri, the other for abscess.

No special preventive measures were taken in the treatment of malarial fevers.

There were 23 venereal cases, with one death, the diseases being primary and constitutional syphilis and gonorrhœa with its sequelæ.

Number of Out-door Patients treated.

7. The number of out-door patients treated at the surgeries at Kuala Lipis, Raub, Pekan, and at the Bentong dispensary, was 5,782. This total is an advance on that of 1899 which was 5,192; it includes 1,552 Malays, 1,623 Chinese, 961 Sikhs, and 740 Tamils.

The remaining 906 visits paid were by persons of 15 different nationalities, viz., Africans, Arabs, Australians, Bengalese, Cabulese, Dyaks, Eurasians, Englishmen, Italians, Japanese, Pathans, Siamese, Singhalese, and Turks.

Intelligent Malays continued to give more thought to our method of treatment, whether medical or surgical. It was not so difficult to persuade them to live in the wards, although they evidently prefer the benefit of immediate treatment at the surgeries. One hundred and eighty-seven were admitted to the wards. Out of 1,123 out-patients at Pekan, nearly 700 were Malays. The principal complaints amongst the out-patients were fever, 970 cases; disorders of the digestive system, 873; and diseases of the skin, 838. There were 46 cases of syphilis; gonorrhœa and its sequelæ contributed another 101 cases. The venereal diseases appear to have been principally contracted in the towns at Raub, Kuala Lipis, and Pekan.

At the Panggong dispensary, 789 visits were recorded, amongst these were 282 cases of malarial fever, 11 of beri-beri, 30 venereal, as well as 177 cases of minor surgery which were satisfactorily treated.

THE GENERAL HEALTH OF THE STATE.

8. A small epidemic of small-pox occurred during the year, 166 cases were reported. In the Pekan district 71 deaths occurred out of 152 cases—a mortality of 47·3 per cent. In Ulu Pahang 2 deaths out of 14 cases were reported. No other infectious or contagious diseases were heard of.

The death-rate has been estimated at 34·88 per mille of the population for all causes. The numbers taken are an estimated population of 76,299, with a registration of 2,662 deaths. This is an increase of registration amounting to 1,183 as compared to 1899.

*Vaccination.*PAHANG,
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9. The vaccinations numbered 3,588, with the following results:—Successful 3,382, or 94·3 per cent., failed 151, and not seen 55. Two vaccinators, both trained Malays, seem to have performed their work satisfactorily and with tact. The supply of buffalo calf lymph is now received direct from the Pasteur Institute at Saigon, instead of through the Singapore Government as in former years.

Health of the Convicts.

10. The health of the convicts was very good, a grand total of only 85 cases being returned from the gaol hospitals at Pekan and in Ulu Pahang. This is the smallest number which has ever been recorded. One death only—from self-strangulation—occurred at Pekan, but one convict died from beri-beri at Kuala Lipis a few hours after his release. He had been sent from Bentong.

The sanitary state of the prisons has been good, the diets adequate and well cooked. The outbreak of beri-beri, in the Pekan gaol, referred to in the British Resident's Annual Report for 1899, was apparently traced to a disturbance of the soil by the digging of a well. The ground operations were then stopped and the epidemic declined. The majority of the cases of beri-beri, however, which occurred during the year, all seem to have been contracted, as usual, before admission to the gaols. The total number was 13. It has been necessary to again use the gaols as a temporary asylum for the insane from time to time. Eight lunatics were confined in the Kuala Lipis gaol and three at Pekan. They were transferred to the Selangor Asylum, or otherwise disposed of.

Health of the Police.

11. The health of the native police was not good, although only 1 death occurred, as compared to 3 in 1899. Out of an average force of 240 men, 240 admissions to hospital were registered, and 606 visits were made to the different out-patient departments. The men stationed at Tras suffered very much from malaria, probably from the unsanitary state of the village. By far the largest proportion of illness resulted from fever and disorders of the digestive system. It is probable, could all the minute evidence be obtained, with regard to parsimonious habits, which is necessary for the purpose of determining the question of relative ill-health of the Sikh policemen as compared with the Sikh soldier, that the difference in results would not be found great. It would be difficult to strike the balance in favour of one class rather than the other. It was possible, however, in 1900, to determine a relative cause of ill-health amongst the Guides Regiment.

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Health of the Guides.

12. The health of the Guides was very bad. Out of a mean annual force of 56 men, the entire number of applications of sick and hurt was 89 treated in hospital and 483 treated as out-patients. Everything, speaking generally, which, in any way, so far disturbed health, whether general or local, as to prevent the performance of duty for the day, was inserted in the returns, and in ordinary circumstances very slight causes were held sufficient for that purpose, yet the numbers are surprisingly large considering the fine physique of the men on enlistment. One man died, and eight were transferred to other stations. During the latter part of the year the health was especially bad. Several severe cases of fever and one of pneumonia were under treatment, but the majority of the sick complained of gastrointestinal disorders and colic throughout the year. It was discovered, in December, that their supply of drinking water, which was from rain caught off the galvanised iron roofs of the barracks, had become contaminated with zinc and that the majority of the men had been suffering from the irritant action of this poison.

Lunacy.

13. Eleven natives were under treatment for insanity during the year. Four suffered from mania, two from melancholia, two from idiocy, and in three the type was not diagnosed. One was a Malay who ran *âmok* and killed several people, towards the end of the year, before his capture by the police.

CATTLE DISEASE.

14. Rinderpest, or cattle plague, has again prevailed in different districts of the State, notably Ulu Pahang. It cannot but be feared that this scourge, which has caused such a loss of water buffaloes and bullocks during the last few years, especially in 1896 and 1899, may soon have to be regarded as an annual occurrence of very serious importance. In 1900, the gross loss in dollars must have been enormous, for it has been said that the buffaloes died off at such a rate that it was impossible to keep count. The number far exceeded 5,000. In 1896, the British Resident noted in his Annual Report on the State of Pahang that the disease is carried by wild swine; this has also been observed with regard to pigs in Sumatra. It is not unreasonable to suppose that it may also be carried by wild birds, especially the white "*bangau*" which so often settles on the buffaloes' backs.

TEMPERATURE AND RAINFALL.

15. Meteorological observations were taken at Kuala Lipis, Raub, Bentong, Pekan, Kuantan, and Temerloh.

Mr. R. M. W. Swan, the Manager of the Tui Gold Mine, has been so kind as to furnish me with a set of returns of the rainfall taken at his house at Bukit Kubu. Doctor Rolph has also sent me some.

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The highest temperature recorded in the shade was 96° F., which was registered both at Kuala Lipis and at Temerloh. This is the highest temperature which has ever been recorded in the State statistics.

The lowest temperature in 1900 was 62·5° F., at Pekan, which is similar to that recorded at Kuantan in 1898. The greatest daily range was 27° F., and the extreme annual range 31° F., at Pekan.

The greatest rainfall was returned from Raub—158·80 inches; the smallest from Kuantan, viz.:—82·26 inches. At Kuala Tui only 85·87 inches were measured, contrasting with the rainfall at Kuala Lipis, which was 96·69, being almost the same as that recorded in 1894, when it was 96·26. The heaviest rainfall during 24 hours was, as usual, at Pekan, 6·18 inches. At Kuala Lipis 4·70 inches and at Kuala Tui 4 inches were recorded, but only 3·50 inches at Raub. At Kuala Tui in 1899 there were 154 rainy days and a total fall of 111·79 inches, in 1900 only 101 rainy days. The maximum temperature for the year at Sungei Lembing was 95° F. in September. The minimum 69° F. in December, the mean temperature for the year being 80·8° F. at Sungei Lembing.

The expenditure of the Medical Department amounted to \$24,855·86 in 1900, as against \$19,836·68 in 1899.

The revenue was \$1,332·06, against \$1,212·16.

JOHN D. GIMLETTE,
Acting Residency Surgeon.

NOTES ON A CASE OF ÂMOK.

The following incident, which is known in English as “running amuck,”* is a fairly common occurrence among Malays.

Man, a Muhammadan, aged about 23 years, male, a native of Kedah, single, was formerly in the Perak police force, but left the service when his time expired and came to Pahang, where he obtained work as a carter at Sempan.

About the end of last June, Mr. Rance, his master, noticed that he was odd in his manner; he lolled about the house in a way unusual to him, and one day apparently had a delusion about seeing a monkey on a tree. He asked that it might be

* Clifford, “East Coast Etchings.”

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shot, and expressed himself as being queer in the head. In a letter, dated October 2nd, Mr. Rance says: "His conduct was a little strange, but I put it down to his not agreeing with the other boys." For a few days he had been acting as a servant, but could not get on well with the others, who were all Chinese. He asked to leave on this account and was discharged.

Mr. Rance had known him for more than two years, and says: "When I heard of the *âmok* I would not believe it, and was much astonished when it turned out to be true."

Man came into Tras, a place near Sempan, where he spent two nights in the jungle, eating little or nothing, and apparently wandering about alone; his legs were scratched with thorns, and he gave this in explanation on being questioned afterwards.

He was not a ne'er-do-well, an opium smoker, or a foolish, extravagant Malay. He had no debts, no quarrel, or love affair, but was evidently "*sakit hati*" with the Chinese. The words "*sakit hati*," which form a phrase in common use among Malays, are defined in Marsden's "*Dictionary of the Malay Language*" as resentment, malice, bearing a grudge—heart (morally) *ati*.

"*Ati*," however, is sometimes referred to as meaning the liver, but as the seat of affections it corresponds with the English heart. The expression is, perhaps, better defined in an older dictionary (Howison's "*Malay Dictionary*," 1801) as: Spite, envy, offence, vexation, and affront, sorry for, offended.

On July 6th, 1900, Man came out of the jungle and went into a house at Tras where his native chief, Ismail, was staying. The house was empty at the time except for a Malay, who was asleep. He took Ismail's sword from under his mat, went out by the back door, and walked towards a Chinese shop in the village close by. Five Chinese and a Javanese coolie were sleeping and smoking opium in different rooms. It was mid-day, the men were strangers to Man. He slashed at the first two Chinese who were lying down and killed one, nearly striking his head off with the sword; he gave the other a severe wound on the face, which has since proved fatal.

Without uttering a cry he then diverged into a smaller room where two other Chinamen were lying down. He cut at one and brought him to his knees, killing him at once by a deep wound in the neck; the other man endeavoured to escape, but he wounded him on the arm and pursued him out of the door. The Javanese now seized him from behind and managed to drag the blade of the sword out of the hilt. It was loose. They struggled, Man fought and bit, crying out "I want to run *âmok*." He finally "slipped away like a fish," to use a Javanese expression, and escaped almost naked into the village, where he armed himself with a large piece of timber. Several Sikh policemen forcibly arrested him, but he struggled so violently that he nearly broke away. At the inquest held the next day he could

not be made to give any statement at all, but uttered a long continuous sort of whine. During the night he had done nothing but stamp and howl, the whole of Tras could hear him.

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Two days later the Assistant Commissioner of Police examined him in his cell. He talked in a friendly way, said he could not recollect the time spent in the jungle, and could remember nothing about the murders. He remarked that there were a few more "orang kapir" (non-Muhammadans) out of the world, and concluded that he must have killed them because he was charged with their murder by the police. He ate rice, bathed, and joked during the afternoon (July 8th), but at midnight began to shout as if terrified, and was found crouching in the corner of his cell. He said it was full of people who wanted to kill him; he thought he saw them, and begged to be taken out and tied up, if necessary, to a tree in the jungle. He quieted down and was brought into the Kuala Lipis gaol.

Since admission, on July 13th, he has been in a solitary cell, quiet, sulky, and reserved, but quite coherent, and apparently rational, except that his memory of the murders seems to have been completely wiped out.

Man was certified as not insane by the Surgeon in charge.

At that time he had been under observation for less than a month, and no complete history of the case was at hand. A good deal of the previous history has been gathered since from various sources.

Man is a well-developed Malay, apparently in good physical health. The knee jerks are exaggerated; there is no history of syphilis. The urine is of low specific gravity, 1006°, does not contain sugar or albumen; the average quantity passed in twenty-four hours is forty-six ounces. Vision is normal, but the pupils are equally dilated. His eyes are restless, the look being uneasy and the glance unsteady. I am not able to record any physical signs of insanity. There is no aural or nasal disease; the facial expression shows mobility. He persistently denies all memory of the *âmok*, and has repudiated the acts which he has committed, so often, that I consider that he had no motive for the crime, and that this obliteration of memory is a genuine symptom of some phase of mental disease.

On one particular occasion (September 8th), at the end of a conversation, his eyes assumed a wild stare, and, I believe, he was about to spring at me. The European gaoler and a Tamil dresser who were present said that this was the first time that they had noticed any change of demeanour. His expression was that of an insane person; the eyes glared and were widely open.

In the Indian Penal Code (Mayne), in a commentary on section 334: "Voluntarily causing hurt on provocation," the

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words "to run amuck generally like a Malay" are used, and this is, I believe, the only special reference to *âmok* in any Code. The commentary is as follows:—

"The meaning of this (section 334, voluntarily causing hurt on provocation) and the following section (causing grievous hurt on provocation), of course, is, that if a person who has received provocation assails the person who has given the provocation he is only liable to a light punishment. But if, while out of temper in consequence of the provocation, he were to attack an innocent person, or to run amuck generally like a Malay, the previous provocation would be no excuse."

The idea that a Malay who runs amuck may be insane does not seem to have occurred to the commentator.

In the case of Man, three innocent people have been slain, others have been grievously hurt without giving any provocation, and he is liable by law to be hanged. It is well known that this sentence has been often carried out and with advantage in *âmok* trials. In "*Hakayit Abdulla*,"* it is recorded that on the death of Colonel Farquhar through an *âmok* in Singapore many years ago, the sentence on the murderer, by his own countrymen, was that he should be punished by the execution of himself and his wives and children. The translator of the book comments on the severity of Malay laws on such occasions. He remarks, however, that, although they may be obnoxious to our moral code, yet they are the most applicable to the genius of the people, and form notoriously the safety-guards to native rulers, who have never been known to be assassinated.

I need only further refer to the almost classical instance in Penang in 1846, when the Chief Justice (Sir William Norris) passed the death sentence after the most severe summing-up which, perhaps, has ever been uttered in an English Court of law. The effect of this sentence seems to have checked the occurrence of *âmok* for a time in Penang.

Similar cases have been tried and sentenced of late years both in the Straits Settlements and in the Federated Malay States. In the "*Singapore Free Press*" of September 13th, 1900, the trial of Haji Ali, who run amuck in Minto Road last May, is reported. In defence, the plea of insanity was set up, but it was not accepted, and the accused was sentenced to death. The trial of Haji Sukor was held the next day for a similar offence, and, it is said, medical evidence on the state of the prisoner's mind was to the effect that nothing abnormal was noticed.

On the other hand, there are Malays who, having managed to evade violent deaths, at the time of their *âmok*, from the hands of their comrades, have been subsequently acquitted on the plea of insanity.

* "*Hakayit Abdullah*," Henry S. King & Co., London, 1894.

Three such cases are quoted by Dr. Ellis,* who also gives a complete account of the Penang murders, referred to above, in his article on "The Amok of the Malays" in the "Journal of the Straits Medical Association," No. 4, Singapore, 1894.

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The mere fact of a Malay having committed *âmok* raises no presumption as to his sanity or insanity. He has simply ran amuck. The Malays themselves in Pahang do not regard the occurrence as an exhibition of true insanity, being more inclined to ascribe it to spiritual agency, and I think the general tendency throughout the East is to regard it as a vice or crime rather than a disease.

Âmok, when scientifically considered, seems to be a symptom which is subject to much individual variation.

In most cases the individual appears to be rendered sub-conscious, as in somnambulism, by the unrestrained action of his own automatic centres.

In some cases, but not in all, this appears to be due to a special pathological condition—a psychical condition—for want of a better word.

This psychical condition seems to result, as it were, from some reflex nervous disturbance or from an auto-intoxication, and to be due to an irresistible impulse of a purposive character.

It is characterised by—

1. A sudden paroxysmal homicide, generally in the male, with evident loss of self-control;
2. A prodromal period of mental depression;
3. A fixed idea to persist in reckless homicide without any motive;
4. A subsequent loss of memory for the acts committed at the time.

There is a constant grouping of these four cardinal symptoms in many of the cases of *âmok* in which notes have been made. Unfortunately, the references are few in number, but they are from a reliable source.*

They are cases of the true insanity of *âmok*, and I think the history of Man may be taken as a typical example of a case of this kind of insanity.

In other instances, there may be no subsequent loss of memory, or there may be a doubt about it, and there is some motive for the *âmok*. For the sake of convenience in description these cases may be referred to as instances of "false *âmok*." It is undesirable, however, to regard *âmok* as being, in any way, a specific disease. As an example of this "false *âmok*," I may quote the case of a perfectly sane Malay who was under my care in Pahang a few years ago. On account of the infidelity of his

* "Journal of Straits Medical Association," 21st August, 1897.

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wife he not only attempted to murder the friend who betrayed him, but at the same time ran amuck generally, and succeeded in wounding several other people who had in no way offended him. Both varieties are popularly so-called cases of *âmok*. It is very necessary, therefore, in making a diagnosis, to recognise any definite clinical features, in order to differentiate, if possible, between sanity and insanity. Malays who are quite sane, although perhaps subconscious, during the height of the attack, may be led to commit *âmok* from motives of jealousy or revenge or from some definite reason, such as wounded vanity or a dread of death on the scaffold. A case has recently been reported from British North Borneo in which a Malay convict ran *âmok* on the eve of his execution.

By no means do I go so far as to say that because a person has run *âmok*, he should be exonerated from all criminality. But if he has the four definite symptoms mentioned above, and has committed the act of *âmok* without any possible motive, without profit to himself or any other person, without premeditation, and consequently in a manner quite different from that in which murder is generally committed, it seems almost a certainty, at least in the case of a civilised person, that it is due to the mental disturbance of some form of insanity.

In the case of a European there would be but little doubt, but in the case of Malays who are so peculiarly apt, as a race, to run *âmok*, the greatest caution is necessary when expressing an opinion. Even the special knowledge of a skilled alienist may be required.

The difficulty of obtaining any family history from a Malay who has run amuck, or practically from any native, adds to the danger of making a wrong diagnosis, and in this, as in other questions of criminality, any open declaration of theory may put an unsupported witness in a false position in a court of law. It comes to be a matter of the highest importance, therefore, that every so-called case of *âmok* should be kept under medical observation for a definite period before trial, so that the mental aspect of each case may be decided on its merits, and the opinion of more than one medical practitioner may be heard.

Âmok (a Malay word, in actual use, pronounced *amo*) is thus defined in Marsden's "Dictionary of the Malay Language":—

"Amuk : engaging furiously in battle ; attacking with desperate resolution ; rushing, in a state of frenzy, to the commission of indiscriminate murder ; running amuck."

It is applied to any animal in a state of vicious rage, and it is interesting to note that the Malay word *niamok*, mosquito, is derived from it.

The primary idea, in the Malay mind is, I believe, that it is a state of violent delirium which should ensue when a brave

man's blood is up in the excitement of battle. In Malay tales it is fitting for the hero to lead the attack recklessly, shouting "Âmok! âmok!" and taking no count of his foes.

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It may be that the stimulus is still a memory image of the ancient battle-cry coupled with the proud idea of dying sword in hand, but the kind of âmok which now disturbs the public tranquillity from time to time, in the days of quiet prosperity, has nothing to do with the actual reality of honourable warfare.

By "running amuck," as I understand the expression, is meant a more or less sudden outbreak, which is characterised by an unprovoked attack on anyone who may happen to be in the way. Defenceless women and children are frequently attacked.

The intent to kill is imperative, and it is worthy of remark that even the weapon used is chosen with the idea of attaining this object without fail. A stabbing or cutting weapon is invariably used in preference to a club or firearm, though, of course, this may be due to the fact that they are the national weapons and most likely to be at hand.

No case has come to my notice of an âmok attack by a female or by a relative of one who has run amuck. It has been said,* but I do not know on what authority, that the tendency is a very infectious one, especially amongst the relatives of those who have once perpetrated the act.

Âmok seems to be unknown among the Sakai or aboriginal inhabitants of Malaya.

The attack might be induced under the special circumstances of strong suggestion in a Malay native who is latah.

Some observers are of opinion that âmok is merely an exhibition of bad temper; others that it is a kind of suicide on the part of a desperate Malay. For example, it has been supposed that the sane Muhammadan, not daring to take his own life in accordance with the Koran, hopes to attain his object by being destroyed in the frenzy of an âmok. And, indeed, many men have been summarily despatched for running âmok by their fellow Malays. I think the inference is unjustifiable, because the natural prejudice against suicide is almost universal amongst Malays. Ordinary suicide is very rare among the males, although it is not unknown. In 1898 there was a case in Pahang in which a Malay quietly cut his throat in a boat on the Jelai river. He was ill and was supposed to be insane. Another Malay was under my care with a cut throat in Kuala Lipis in 1898. He was obviously insane and subsequently died in the Selangor Asylum.

* "Singapore Free Press," 2nd April, 1901.

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Another case occurred in the Jelai district in 1895 in which a Malay girl, on the eve of her marriage, cut her own throat with a razor belonging to her father.

The history is pathetic and has formed material for a novel.* Before her death she was asked her reason for having cut her throat, and she replied that, whilst combing her hair in front of the looking glass, the ugliness of her own features was more than she could bear, so she desired to commit suicide, being too ugly to live. The only case of suicide which seems to bear upon *âmok* is one which occurred fifteen years ago in Perak, when a Malay ran amuck and after wounding several people drew his weapon across his own throat and so died, in order, apparently, to prevent himself being captured alive. It is logically incorrect, however, to conclude that a naturally indolent Malay will go to the exertion of a preliminary *âmok* merely with the idea of bringing about his own destruction.

The well-known association of suicidal mania with religious melancholia seems to have led other observers to conclude that the influence of the Muhammadan religion may be a factor in the causation. But although *âmok* has made the Malays and their descendants notorious all over the world, it does not appear to have affected the millions of Mussulmans in Turkey, and most other Muhammadan countries. The victims generally fall quite independently of creed, nationality, or relationship. And although a good deal of religious fanaticism may be induced in the mêlée, I do not think, from what I know of Pahang Malays, that the pure Muhammadan religion has anything to do with *âmok*. The religion of the Malay native is, speaking generally, made up of a superstitious and very conservative belief in old charms and magic, as well as public worship at the mosques and high places.

As far as the unpremeditated murders of *âmok* go, I think that the laws of the Koran relating to murder clearly support my opinion, except perhaps in some cases of "false *âmok*."

I doubt whether the ordinary Pahang villager has ever studied these laws, but the question seems to be of little importance because doubtless Malays have been carried away by the blind passion of *âmok* long before the comparatively modern conversion of the race to Muhammadanism. Indeed, the occurrence was much more prevalent in the old days, and, as Mr. Clifford says, in his Dictionary,† the advance of civilisation has done much to repress this peculiarity of the Malays, and *âmok* running is becoming yearly more rare.

The mental upheaval of *âmok* has some of the clinical features of epileptic mania. There is impulsiveness, violence, homicide,

* Clifford, "In Court and Kampong."

† "A Dictionary of the Malay Language," Clifford & Swettenham, Part I.

and destructiveness. Mr. Clifford notes that a man who runs âmok may purposely collect and destroy his most valuable possessions.*

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It seems to resemble also very closely the automatic condition left after an epileptic fit, more particularly the so-called "procursive" or "procursine" epilepsy in which the patient starts to run.† To run amuck is a universal expression.

The red vision, or field of blood, which has been described in some cases of âmok, is also significant of an epileptic aura, but there seem to be no motor or visceral auras.

Although, according to Trousseau‡ Muhammad himself was said to be an epileptic, I have not yet seen or recognized either petit-mal or haut-mal in Pahang Muhammadans, nor the more or less regular manifestations of epilepsie larvée.

There is no history of Man having had fits during childhood, and he has had none of the ordinary signs of epilepsy since he has been under observation.

At his trial, on October 8th, 1900, he was judged to be insane chiefly on account of the fact that he had loss of memory, which, coupled with the previous history of delusion and hallucination, was sufficient to allow that he had been unconscious of his actions when he ran âmok.

The demeanour of the prisoner in Court was curious. He was no longer depressed. His spirits seemed to rise and he was almost excited at times; he had loss of memory for names of places and was evidently not alive to the fact that he was being tried for his life. He was transferred to the Selangor Asylum on November 29th, 1900.

The future history of this case will be of great interest. It may supply material for reflection with regard to the recurrence of symptoms which sometimes occur in âmok and thus prove of general as well as special interest.

REMARKS ON A CASE OF LEPROSY.

Many clinical cases of leprosy have been published, but the simple example here recorded is of general interest. The patient was an unmarried Eurasian, aged 27 years. He was born in Singapore, but had lived for some time in the Malay Native States. He was a clerk and interpreter in the police court at Pekan. There was no case of phthisis in the family as far as was known. One sister suffered from "fits." His father and brother were alive and well. The mother had died in child-bed.

* Clifford, "In Court and Kampong."

† "Lancet," Vol. II., 1893, pp. 148, 705.

‡ Trousseau's "Clinical Medicine," Vol. I., p. 67.

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The patient had had the ordinary ailments of childhood, but otherwise had been in fairly good health until about Christmas, 1894. He was then treated at Pekan for "simple rheumatic inflammation of the tendon sheaths, with some degree of high temperature and glandular swellings." In March, 1896, this illness recurred and was accompanied by a curious bilateral purpuric eruption on the legs fugitive in character. There was again acute inflammation of the tendon sheaths of both feet and of the right hand. He was sent to Singapore, where he was found to be suffering from a peripheral neuritis, which was diagnosed as *beri-beri*. About this time the legs were swollen and he was unable to walk. At the end of June, 1896, he returned to duty. He said that he had squandered his money ever since in the purchase of useless, empiric drugs, but that he had never felt himself again. During the last two years he had had attacks of dysenteric diarrhoea, and had been gradually losing heart and strength. When I saw the patient he complained greatly of weakness and said that his legs often felt useless, especially after walking. He had a rash which came and went. It was on the face, the legs, and the arms. It was not painful and did not itch. About six months previously sores broke out on his fingers, which healed up from time to time of their own accord. Four or five months previously he felt a small lump on the nose. It had given little or no inconvenience and had remained about the same size. He noted that he fumbled in dressing himself and could not button his clothes with ordinary precision. For some time he had had a chronic cold and had snuffled but he had had no cough. The appetite was indifferent, the teeth were decayed, and the bowels were irregular.

On examination he was found to be a tall, thin, sad-looking man with an unnatural aspect. The skin of the face was coarse, with a livid flush on each cheek. The ears were enlarged, projecting, deformed, and were wrinkled and nodular. At the bridge of the nose there was a small broad tubercle. The eyebrows were scanty. The hands were wasted as if from paralysis of the ulnar nerve, and the fingers showed clearly some trophic lesions in the skin. They were covered with dry sores, especially on the back of the phalangeal joints. Otherwise the skin here was smooth and glossy as if it had been varnished. There was impairment of sensation in the skin of the fingers and forearms and in places there was anaesthesia. The muscles of the arm and especially those of the forearms were wasted. The *interossei* muscles were atrophied and doubtless an application of the Roentgen Rays would already demonstrate atrophy of the metacarpal bones. The body generally was covered with large patches of brownish pigmentary stains.

The chest was ill-developed, but the heart and lungs appeared to be normal. On the outer side of each leg there were patches of anaesthesia, with purplish eruptions on the shins. A distinct nodule, among others, of about the size of a split pea could be

felt on the extensor aspect of the right leg. The patient was sent to Singapore, where he was seen by Dr. M. F. Simon, in consultation with Dr. J. T. Leask and Dr. W. G. Ellis. They found the bacilli of leprosy in large numbers in the discharge from a sore on the finger and in serum taken from a nodule on the ear.

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There were no other cases of leprosy in Pekan at the time. The disease, in fact, is not common in Pahang, which is a country of great extent, probably exceeding 14,000 square miles, with an estimated population of about 83,000. The British Resident caused a rough census of the lepers in Pahang to be taken in 1899. The total number was found to be about 168. With the exception of two Chinese, all of these were Malays. The return was made by the native chiefs and may, probably, contain many errors in diagnosis. The disease, as far as my personal observation goes, is usually met with among the poor of the native population. In this case, however, the patient was an intelligent member of the community, following a public occupation and leading a more or less healthy life. It is an instance of the mystery which still surrounds the origin of isolated cases of leprosy. The history is of special interest now that the compulsory segregation of lepers is under consideration by the Government. A scheme has been proposed to segregate them on an island on the west coast of the Malay Peninsula. Such a course will be extremely unpopular with the relatives and friends of Pahang Malays who may be afflicted with the disease.

But it is agreed that leprosy is a contagious disease. All observers, however, who are not influenced by any theory, and who have no desire to fit the facts of their cases to any favourite doctrine, will, I think, admit that a certain number of cases appear to militate against a very widely received opinion as to the advisability of compulsory segregation. Ample as the reasons for legal measures may be in the colonies, they will, I think, allow that under certain circumstances voluntary isolation is a sufficient safeguard. I refer especially to those periods of latency which may occur during the course of the disease.

In the case given above, the patient had given up his occupation, and had made no attempt to trifle with his affliction. If any inquisitorial interference with his home had been instituted there would not have been wanting critics to designate it as a grave offence against the public liberty. Doubtless if the disease had been found out earlier he would have been discharged from his office long before. It may be fairly presumed, however, that until the open sores had developed he had not been an immediate source of danger to the crowds in the police courts. After that time the danger from inoculation would have been great. In this particular case the difficulties in diagnosis of the early stages of leprosy were well exemplified. It was at first

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confounded with an infective form of rheumatism, and then with the peripheral neuritis of beri-beri. That beri-beri should have been diagnosed is a point of special interest. The same thing occurred in cases recorded by Dr. Ashburton Thompson, of Sydney, in his Reports on Leprosy in New South Wales, 1896 and 1898.

The two attacks of high temperature and glandular swelling were evidently leprous fever. Later the patient was popularly supposed to be suffering from tertiary syphilis, and I do not doubt had been taking iodide of potash in large doses. This is again interesting, because severe purpuric eruptions may follow the administration of potassium iodide when given in leprosy under the idea that the ulceration is due to tertiary syphilis. I am indebted to Dr. Pernet, Pathologist to the Hospital for Diseases of the Skin, Blackfriars, for his kindness in drawing my attention to the special points of interest in the case.

Like hydrophobia and diphtheria, leprosy is most deadly when it forms a focus, and although the bacillus so closely resembles that of tuberculosis, the resisting power of man to the bacillus lepræ is probably not so great as that to the tubercle bacillus. In both cases isolation as a preventive measure affords the best and only protection for the public health, and although the hygienic treatment of tuberculosis in sanatoria seems likely to repay at last the persevering quest of modern scientists, the cure of the individual leper seems more likely to be brought about by the inoculation of some anti-toxin.

No. 16.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

ST. KITTS-NEVIS AND ANGUILLA,

1900.

MEDICAL REPORT ON THE SANITARY CONDITION
OF THE ISLANDS.

SECTION 1.

Return of Statistics of Population in the Presidency of
St. Kitts-Nevis for the year 1900 :—

ST. KITTS-
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ANGUILLA,
1900.

(1.) RETURN OF STATISTICS OF POPULATION IN THE PRESIDENCY OF ST. KITTS-NEVIS.

	Europeans and Whites.			Mixed and Coloured.			Total.	
	St. Kitts.	Nevis.	Anguilla.	St. Kitts.	Nevis.	Anguilla.	St. Kitts.	Nevis. Anguilla.
Number of—								
Inhabitants in 1899 ...	2,469	160	44	30,636	14,249	4,319	33,105	14,409 4,363
*Births during the year 1899 ...	35	1	2	1,119	565	156	1,154	566 158
Deaths " " ...	42	—	4	899	294	51	941	294 55
Inhabitants in 1900 ...	2,462	161	42	30,856	14,520	4,424	33,318	14,681 4,466
Increase ...	—	1	—	220	271	105	213	272 105
Decrease ...	7	—	2	—	—	—	—	— —

* Still-births are included in both the births and the deaths in this table.

In the following table the birth, still-birth, and death rates in the three islands are exhibited:—

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

BIRTH, STILL BIRTH, AND DEATH RATES IN THE
PRESIDENCY.

	Living Births.	Birth rate per 1,000 of inhabitants.	Still-Births.	Still-Birth rate per 1,000.	Deaths, exclusive of Still-birth.	Death rate per 1,000 of inhabitants.
St. Kitts	1,073	32.20	81	2.43	860	25.81
Nevis	533	36.30	33	2.24	261	17.77
Anguilla	151	33.81	7	1.56	48	10.74

It will be seen from these figures that the birth rate of St. Kitts was the lowest and that of Nevis the highest of the three islands; while the death rate of St. Kitts was the highest and that of Anguilla the lowest. This is the case also with reference to the still-birth rate.

A comparison of the births (including the still-born) in 1899 and 1900, shews 93 less in the present year in St. Kitts; seven more in Nevis; and 36 more in Anguilla.

The still-births in 1900 were 21 less than in 1899 in St. Kitts, and 12 less in Nevis, but three more in Anguilla.

The deaths (including still-born children) were less in all these islands in 1900 than in 1899:—in St. Kitts, 93; in Nevis, 42; and in Anguilla, two less.

SECTION 2.

The following table enumerates the fatal cases that occurred in the three islands during the several quarters of the year. It will, therefore, illustrate the effect of the seasons on the prevalence and type of the more serious diseases that manifested themselves in 1900:—

ST. KITTS-NEVIS AND ANGUILLA,
1900.

DEATHS in the PRESIDENCY of ST. KITTS-NEVIS in the
YEAR 1900.

Diseases.	Total for Year.		
	St. Kitts.	Nevis.	Anguilla.
GENERAL DISEASES.			
Influenza	32	9	2
Dysentery	34	4	—
Malarial Fever—			
(a.) Intermittent—			
Type undiagnosed ...	16	17	7
(b.) Remittent	8	1	—
Septicæmia... ..	8	2	—
Pyæmia	1	1	1
Erysipelas	1	4	—
Tetanus	37	4	2
Tubercle	90	38	10
Leprosy—			
(a.) Tubercular	4	—	—
(b.) Anæsthetic	3	—	—
Yaws	—	1	—
Syphilis—			
(a.) Secondary	12	—	—
(b.) Inherited	11	—	—
New Growth, malignant ...	14	—	1
Anæmia	4	—	—
Diabetes Mellitus	1	—	—
Debility	93	46	7
Carried forward ...	369	127	30

*Deaths in the Presidency of St. Kitts-Nevis, &c.—cont.*ST. KITTS
NEVIS AND
ANGUILLA,
1900.

Diseases.	Total for Year.		
	St. Kitts.	Nevis.	Anguilla.
Brought forward ...	369	127	30
LOCAL DISEASES.			
Diseases of Nervous System—			
Meningitis	11	11	—
Myelitis	1	1	—
Hydrocephalus	1	—	—
Congestion of Brain	7	—	1
Encephalitis	10	—	—
Functional Nervous Disorders—			
Apoplexy	7	1	—
Paralysis... ..	12	2	—
Epilepsy	1	2	—
Diseases of Circulatory System—			
(a.) Aneurism	1	—	—
(b.) Valvular Disease	54	11	2
(c.) Other Diseases of the Class	7	5	—
Diseases of Respiratory System—			
(a.) Bronchitis	20	13	3
(b.) Pneumonia	20	3	—
(c.) Pleurisy	1	—	—
(d.) Other Diseases of the Class	4	—	—
Diseases of Digestive System—			
(a.) Gastritis	3	2	—
(b.) Enteritis	61	3	—
Carried forward ...	590	181	36

ST. KITTS-
NEVIS, AND
ANGUILLA,
1900.

Deaths in the Presidency of St. Kitts-Nevis, &c.—cont.

Diseases.	Total for Year		
	St. Kitts.	Nevis.	Anguilla.
Brought forward ...	590	181	36
LOCAL DISEASES— <i>cont.</i>			
Diseases of Digestive System— <i>cont.</i>			
(c.) Hernia	1	2	—
(d.) Diarrhoea	196	51	5
(e.) Diseases of the Liver ...	3	6	2
(f.) Other Diseases of the Class	12	3	1
Diseases of Lymphatic System—			
Lymphadenoma	—	—	1
Diseases of the Urinary System—			
(a.) Nephritis	5	1	—
(b.) Bright's Disease	14	7	—
(c.) Stricture of Urethra ...	1	—	—
Diseases of Generative System—			
Female Organs—			
(a.) Inflammation of Uterus	2	—	—
(b.) Abnormal Pregnancy ...	3	2	—
Diseases of Organs of Locomotion—			
Synovitis	1	—	—
Diseases of Cellular Tissue—			
Abscess	1	1	—
Diseases of the Skin—			
(a.) Ulcers	1	1	—
(b.) Other Diseases of the Class	—	—	1
Carried forward ...	830	255	46

*Deaths in the Presidency of St. Kitts-Nevis, &c.—cont.*ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Total for Year.		
	St. Kitts.	Nevis.	Anguilla.
Brought forward ...	830	255	46
INJURIES.			
General—			
(a.) Shock	1	—	—
(b.) Asphyxia	—	—	1
Local—			
(a.) Wounds and Contusions...	—	1	—
(b.) Fractures	4	—	—
(c.) Burns	1	1	—
MALFORMATIONS.			
(a.) Congenital Tumour of Neck	1	—	—
(b.) Encephalocele	—	1	—
POISONS.			
(a.) Kerosene Oil	—	1	—
(b.) Fish	1	—	—
(c.) Cassava	—	1	—
PARASITES.			
(a.) Ascaris lumbricoides ...	7	—	—
(b.) Filaria nocturna	6	—	1
Unknown	6	1	2
Still-Birth	81	33	5
Total	941	294	55

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

An epidemic of influenza prevailed in the Presidency during four or five months of the year. It was not the seasonal catarrh that sets in about Christmas time in the West Indies and occasionally lasts as late as April. The epidemic of this year broke out in St. Kitts and its two sister islands simultaneously in the latter part of March, and continued till the end of July. It seemed to have been imported, was of a decidedly infectious character, and manifested the same class of symptoms and sequelæ as are observed in the grip of higher latitudes. This was not the first nor the severest epidemic of influenza that has visited these islands, but it was very general in St. Kitts and Nevis. Dr. Cooke of the latter island says, in his quarterly report, that it was "widely circulated" in his district. It was quite as prevalent in Anguilla.

A large proportion of the total amount of sickness during the year was, as usual, due to diarrhœa and dysentery. These diseases were scarcely more common and severe in the latter than the former part of the year. But 1900 was exceptional in this respect, and it would, on that account chiefly, have been particularly healthy had not influenza made its appearance. The seasonal sickliness of last fall, not being of a pronounced character, the difference between the two halves of the year as to the prevalence of special types of disease was less distinct than usual.

Malarial fevers, which are as rife in the fall of nearly every year as dysentery and diarrhœa, have also been mild in type and below the average in St. Kitts in frequency. This was the case in Nevis also, but not so notably. Anguilla, on the other hand, appears to have had an opposite experience in this respect. It is held to be an island practically free from malaria, but an epidemic of malarial fever of a type not specified in the return seems to have occurred there this year, and to have been at its worst in an anomalous season—the first quarter. Malarial fever was also prevalent in Anguilla in the same season of 1899.

* * * * *

RETURN OF DEATHS IN THE SEVERAL PARISHES OF THE ST KITTS-
PRESIDENCY IN 1900. NEVIS AND
ANGUILLA,
1900.

St. Kitts.

Parish.	Number of Deaths inclusive of Still-Births.				
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
St. George	71	104	114	75	364
St. Peter	7	13	11	16	47
St. Mary	22	26	21	15	84
Christ Church	8	23	13	21	65
St. John	18	19	30	30	97
St. Paul	10	5	11	12	38
St. Anne	26	40	37	19	122
St. Thomas	23	16	32	21	92
Trinity	9	6	9	8	32
Total	194	252	278	217	941

Nevis.

Parish.	Number of Deaths inclusive of Still-Births.				
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
St. George	17	13	27	26	83
St. John	9	9	18	15	51
St. Thomas	11	17	14	11	53
St. James	10	12	11	9	42
St. Paul	24	14	13	14	65
Total	71	65	83	75	294

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Anguilla.

Parish.	Number of Deaths inclusive of Still-Births.				
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.
Anguilla | ... ..	13	15	11	16	55
Grand Totals (St. Kitts, Nevis, and Anguilla).	278	332	372	308	1,290

These figures tell the usual tale of a higher death-rate in the Presidency as a whole in the second than in the first half-year. They repeat the same story in each of the two larger islands separately; while in Anguilla the scores are as nearly as possible equal. There were more deaths in the second half-year in seven out of the nine parishes of St. Kitts, but in Nevis the number in the first half was greater in three out of five parishes. The rule would probably not have held good in Nevis this year but for the marked sickliness and mortality in the parishes of St. George and St. John in the third and fourth quarters.

The score of the various diseases and deaths in the hospital is also illustrative to a certain extent of the relations of the seasons to the sick and death-rates. The Hospital Returns have therefore been placed just after this section, though many of their items are more relevant to subjects discussed later on in the report. The admissions and deaths are not distributed among the several quarters in these returns. It is easy, however, to do this in the case of the Cunningham Hospital, and as three times as many cases were treated in it as in the minor hospitals combined, it may suffice for present purposes to summarise the facts relating to the subject matter of Sections 1 and 2 that can be obtained from its statistics.

The cases treated in the Cunningham Hospital in the first quarter were 337, of which 258 were admissions; in the second quarter 220 were admitted; in the third, 203; and in the fourth, 227.

There were 21 deaths in the first quarter; 22 in the second; 36 in the third; and 28 in the fourth.

It will be seen that the mortality followed the rule of being larger in the second than in the first half of the year. This coincidence with the island statistics is itself the rule with respect

to the deaths in this hospital. It would have been a little more marked but for the occurrence of four deaths in the wards from the influenza epidemic.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

There were more bad cases of dysentery in the hospital in the latter than in the earlier six months of the year, and a few more deaths. This is in accordance with the hospital records of nearly every previous year, but is not so markedly observable in the present as in many former returns. It also tallies with the figures in the table of Causes of Deaths in the Presidency.

Tubercle, which practically means phthisis in all these returns, contributes more in a direct way to the annual death list of this hospital than any other single type of disease. The year 1900 was no exception to the rule. Season does not seem to have much effect on the mortality from this malady in the West Indian climate. This point will be referred to again in the next section.

RETURN of DISEASES and DEATHS in 1900 at the CUNNINGHAM HOSPITAL.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza 	27	4	
Febricula 	2	—	
Dysentery 	22	13	
Malarial Fever—			
(a.) Intermittent { Quotidian	2	—	
{ Tertian	1	—	
(b.) Remittent 	23	3	
Septicæmia 	2	1	
Tetanus	1	1	
Tubercle 	48	26	
Yaws 	2	—	
Carried forward ...	130	48	

Cunningham Hospital—cont.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	130	48	
GENERAL DISEASES—cont.			
Syphilis—			
(a.) Primary	37	—	
(b.) Secondary	101	10	
(c.) Inherited	3	—	
Gonorrhœa	27	—	Including sequelæ
Alcoholism	1	—	
Rheumatism	7	—	
New Growths—			
Non-malignant*	23	—	
Malignant	16	6	
Anæmia	2	1	
Debility	13	2	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Diseases of the Nerves—			
Myelitis	3	—	
Encephalitis	14	8	Sclerosis of brain.
Congestion of Brain... ..	1	1	
Carried forward ...	378	76	

* Includes nasal polypus and non-malignant uterine and ovarian tumours.

Cunningham Hospital—cont.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	378	76	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Nervous System— <i>cont.</i>			
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	1	2	
Paralysis	9	1	
Epilepsy	5	—	
Neuralgia	1	—	
Hysteria	7	—	
Sub-section 3.			
Mental Diseases—			
Idiocy	2	—	
Mania	10	—	
Melancholia	5	—	
Dementia [*]	7	—	
Delusional Insanity	1	—	
Diseases of the Eye—			
(a.) Of Eyelids and Con- junctiva.	31	—	
(b.) Of the Outer Coats ...	5	—	Cornea and sclerotic.
(c.) Of the Inner Coats* ...	10	—	
(d.) Of the Lens and Capsule	6	—	
(e.) Of the Globe	5	—	
Carried forward ...	483	79	

* Iris with ciliary bodies, choroid, and retina.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Cunningham Hospital—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	483	79	
LOCAL DISEASES—cont.			
Diseases of the Ear—			
(a.) Of the External Ear ...	1	—	
(b.) Of the Internal Ear ...	1	—	
Diseases of the Circulatory System—			
(a.) Aneurism	2	—	
(b.) Valvular Diseases ...	28	15	
(c.) Other Diseases of the Class.	5	1	
Diseases of the Respiratory System—			
(a.) Bronchitis	11	—	
(b.) Pneumonia	2	1	
(c.) Pleurisy*	2	—	
(d.) Other Diseases of the Class.	3	—	
Diseases of the Digestive System—			
(a.) Gastritis and Ulcer of Stomach.	2	—	
(b.) Enteritis	2	2	
(c.) Hernia	49	—	
(d.) Diarrhoea	33	6	
(e.) Psilosis	1	—	
(f.) Diseases of the Liver ...	3	1	
Carried forward ...	628	105	

* Including hydrothorax and empyema.

*Cunningham Hospital—cont.*ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	628	105	
LOCAL DISEASES—cont.			
Diseases of the Digestive System—cont.			
(g.) Diseases of the Anus and Rectum.	13	—	
(h.) Other Diseases of the Class.	18	1	
Diseases of the Lymphatic System—			
(a) Inflammation of the Lymphatic Glands.	1	—	
(b.) Lymphadenoma ...	1	—	
Diseases of the Urinary System—			
(a.) Bright's Disease ...	12	7	
(b.) Stricture of Urethra ...	12	1	
Other Diseases of the Class.	3	—	
Diseases of the Generative System—			
Male Organs—			
(a.) Phimosi and Puru-phimosi.	8	—	
(b.) Hydrocele and Hæm- atacele.	24	—	
(c.) Orchitis	1	—	
(d.) Hypertrophy of Pros- tate.	5	—	
(e.) Other Diseases of the Class.	5	—	
Carried forward ...	731	114	

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Cunningham Hospital—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	731	114	
LOCAL DISEASES— <i>cont.</i>			
Female Organs—			
(a.) Inflammation of Uterus.	2	—	
(b.) Displacement of Uterus.	2	—	
(c.) Hæmorrhage from Uterus.	3	—	
(d.) Normal Pregnancy ...	6	—	Two cases of recent delivery; two pregnant and simulating labour; and two confined here with living children. All six from the gaol.
(e.) Abnormal Pregnancy	1	—	Post partum Eclampsia.
Diseases of Organs of Locomotion—			
(a.) Synovitis	10	1	
(b.) Caries and Necrosis of Bones.	5	—	
Diseases of the Cellular Tissue—			
(a.) Boils and Carbuncles ...	1	—	
(b.) Abscess	62	—	
Diseases of the Skin—			
(a.) Eruptions	1	—	
(b.) Ulcers	66	—	
(c.) Other Diseases of the Class.	2	—	
Carried forward ...	892	115	

*Cunningham Hospital—cont.*ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	892	115	
INJURIES.			
Local—			
(a.) Wounds and Con- tusions.	30	—	
(b.) Dislocation of Joints ...	3	—	
(c.) Fracture of Bones ...	15	—	
(d.) Other Injuries of the Class.	1	—	
SURGICAL OPERATIONS.*			
(a.) Operations on Eye ...	36	—	*These cases have al- ready been accounted for in the several columns of this Re- turn under the names of the diseases from which the patients suffered. They have therefore not been taken into account in adding up the columns, and their total (220) has been kept separate from the grand total of cases treated.
(b.) Incisions through Skin for various purposes.	81	1	
(c.) Removal of Tumours ...	14	—	
(d.) Trephining of Skull ...	1	—	
(e.) Amputations	9	—	
(f.) Paracentesis of Abdomen and Thorax.	14	4	
(g.) Herniotomy	1	—	
(h.) Operations on Anus and Rectum.	9	—	
(i.) Operations on Genitals, Male and Female.	47	2	
(j.) Other Operations	8	—	
Carried forward ...	941	115	

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Cunningham Hospital—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	941	115	
MALFORMATIONS.			
(a.) Talipes Equinus	1	—	
(b.) Genu Valgum	1	—	
(c.) Torticollis	1	—	
POISONS.			
Alcohol	1	—	
PARASITES.			
(a.) Ascaris lumbricoides ...	5	—	
(b.) Oxyuris vermicularis ...	1	—	
(c.) Anchylostoma duodenale...	1	—	
(d.) Filaria nocturna	14	2	
No appreciable Disease ...	21	—	
Total	987	117	

RETURN of DISEASES and DEATHS in 1900 at the NEVIS INFIRMARY; POGSON HOSPITAL; LAZARETTO; and BASSETERRE MATERNITY COTTAGE.

St. KITTS-NEVIS AND ANGUILLA, 1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza	6	2	Dr. Foreman remarks that "three of these cases were admitted in a state of extreme exhaustion."
Dysentery	2	2	
Malarial Fever—			
Type undiagnosed	22	2	
Erysipelas	3	1	
Pyæmia	2	2	
Tetanus	1	—	
Tubercle	15	11	
Leprosy—			
(a.) Tubercular	28	5	
(b.) Anæsthetic	45	3	
Syphilis—			
Secondary	3	—	
Rheumatism	15	—	
New Growth, non-malignant ...	1	—	
Debility	3	2	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Diseases of the Nerves—			
Meningitis	1	1	
Carried forward ...	147	31	

Nevis Infirmary, &c—cont.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

Diseases.	Yearly Total.		Remarks.	
	Cases.	Deaths.		
Brought forward ...	147	31		
LOCAL DISEASES— <i>cont.</i>				
Functional Nervous Disorders—				
Paralysis	2	1	Dr. Foreman remarks that the fatal one of these two cases was caused by an accident during the hurricane of August, 1899.	
Epilepsy	2	—		
Diseases of the Circulatory System—				
Valvular Disease	2	—		
Other Diseases of the Class...	1	—		
Diseases of the Respiratory System—				
Bronchitis	1	—		
Pneumonia	1	1		
Other Diseases of the Class...	4	—		
Diseases of the Digestive System—				
(a.) Diseases of Liver ...	3	2		
(b.) Hernia	4	1		
(c.) Diseases of Anus and Rectum.	1	—		
(d.) Other Diseases of the Class.	1	—	Dr. Foreman states that this death was due to Peritonitis from injury and exposure during the hurricane of August, 1899.	
Diseases of the Urinary System—				
(a.) Bright's Disease ...	4	—		
(b.) Structure of Urethra ...	1	—		
Carried forward ...	174	36		

*Nevis Infirmary, &c.—cont.*ST. KITTS-
NEVIS AND
ANGUILLA,
1900.
—

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	174	36	
LOCAL DISEASES— <i>cont.</i>			
Diseases of Generative System—			
Male Organs—			
(a.) Orchitis	1	—	
(b.) Other Diseases of the Class.	3	—	
Female Organs—			
(a.) Normal Pregnancy ...	55	—	
(b.) Abnormal Pregnancy	1	—	
(c.) Other Diseases of the Class.	1	—	
Diseases of Organs of Locomotion—			
(a.) Synovitis	1	—	
(b.) Caries of Bones ...	4	—	
(c.) Other Diseases of the Class.	2	—	
Diseases of Cellular Tissues—			
(a.) Abscess	3	1	
Diseases of Skin—			
(a.) Eruptions	1	—	
(b.) Ulcers	35	2	
(c.) Other Diseases of the Class.	2	—	
Carried forward ...	283	39	

ST. KITIS-
NEVIS AND
ANGUILLA,
1900.

Nevis Infirmary, &c.—cont.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	283	39	
INJURIES.			
Local—			
(a.) Wounds and Contusions	5	—	
(b.) Fracture of Bones ...	4	1	
(c.) Burns	2	1	
(d.) Other Injuries of the Class.	30	1	Dr. Foreman explains that one of the two deaths was from "Fracture of the skull by accident."
SURGICAL OPERATIONS.*			*The remarks that were made in the Cunningham Hospital Returns on the operation cases being included in the general list of diseases, apply here also.
(a.) Incisions	3	—	Dr. Bell observes that this was an "amputation at the shoulder joint for compound fracture."
(b.) Removal of Tumours ...	6	—	One of these is stated to have been padalic version for placenta previa.
(c.) Amputations	1	1	This would have been counted too (trivial for insertion in the list, but Dr. Foreman informs me that the artery wounded was the axillary.
(d.) Paracentesis for Ascites ...	1	—	Dr. Foreman adds a note to his list of operations to the effect that they were "mostly minor," and that there were "also 12 removals of toenails for Onychia in children."
(e.) Operations on Genitals, Male and Female.	3	—	
(f.) Ligature of wounded artery.	1	—	
PARASITES.			
Filaria nocturna	1	—	
Still-birth	2	2	Drs. Fretz and Nurse record one still birth at the Basseterre Maternity and the death of a child a few hours after birth.
Total	327	44	

SECTION IV.

The meteorological returns required by the model report are appended along with a table, similar to that given in the medical report for 1899, containing certain other valuable meteorological memoranda.

METEOROLOGICAL RETURN for the YEAR 1900.

(Data taken from Records of U.S. Weather Bureau.)

	Temperature (Fahrenheit Degrees.)						Rainfall.		Winds.		Remarks.
	Maximum.	Minimum.	Mean Shade Maximum.	Mean Shade Minimum.	Mean Daily Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force per (miles per hour).	
January	84	67	82	72	9-8	77.1	1.78	73	E.	10.9	
February	84	69	81	72	8-9	76.8	1.46	73	E.	11.2	
March	83	69	81	73	8-6	77.0	1.04	69	E.	12.0	
April	86	68	83	73	9-6	77.8	2.64	77	E.	11.2	
May	86	68	85	75	9-5	79.8	2.21	76	E.	10.6	
June	88	71	85	76	8-5	80.8	2.71	76	E.	10.6	
July	88	71	86	76	9-6	81.0	4.13	76	E.	11.5	
August	87	67	86	76	10-1	81.2	3.41	78	E.	11.0	
September	88	72	86	77	9-1	81.8	4.29	77	E.	10.0	
October	89	68	86	76	10-3	81.2	7.25	78	E.	8.0	
November	87	69	85	74	11-6	79.3	3.91	77	N.E.	7.7	
December	86	70	84	74	9-9	78.5	3.17	75	E.	9.4	
Yearly Mean	86.3	69.1	84.2	74.5	9-6	79.4	38.00	75	E.	10.3	

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

METEOROLOGICAL DATA.

1900.	Barometer (Sea Level).				Precipitation.			Wind.				Number of days.			Gales (40 miles or over).	Thunderstorms.	Dew point.	Relative humidity.	Mean cloudiness (0 to 10).	
	Highest.	Date.	Lowest.	Date.	Monthly average.	Average daily range.	Number of days with 0.1 inches or more.	Greatest amount in any 24 consecutive hours.	Date.	Total movement.			Clear.	Partly cloudy.						Cloudy.
										Miles.	Direction.	Date.								
January	30.06	31	29.92	23	30.01	-0.88	20	0.40	12/13	8100	27	E.	29	7	23	1	—	68	4.6	
February	30.12	21	29.96	8	30.06	-0.90	10	0.52	4/5	7560	25	E.	3	10	13	5	—	67	4.9	
March	30.15	8	29.90	12	30.04	-0.90	5	0.97	12/13	8951	23	E.	28	10	18	3	—	65	4.2	
April	30.10	2	29.86	6	30.00	-0.86	18	1.13	29	8064	24	N.E.	29	9	12	9	—	65	5.6	
May	30.10	3	29.93	31	30.01	-0.75	18	0.89	23/24	7921	22	E.	25	3	22	6	—	70	5.2	
June	30.10	18	29.94	9	30.01	-0.70	17	1.30	27/28	7656	28	E.	16	3	17	10	—	72	5.2	
July	30.06	7	29.93	20	30.01	-0.72	22	1.26	30	8590	30	E.	12	10	14	7	—	73	6.0	
August	30.08	11	29.82	30	30.00	-0.76	20	0.93	16/17	8219	36	S.E.	31	7	19	5	—	73	5.1	
September	30.08	17	29.85	13	29.97	-0.79	17	1.97	27	7218	30	E.	1	11	11	8	—	74	5.2	
October	30.02	18	29.78	24	29.94	-0.85	21	4.80	23/24	5952	24	N.E.	23	14	10	7	—	74	4.7	
November	30.02	8	29.82	22	29.94	-0.87	17	1.27	18/19	5554	24	E.	19	13	16	1	—	73	4.7	
December	30.10	31	29.90	1	30.02	-0.90	25	0.84	7/8	7014	25	E.	11	12	15	4	—	72	3.7	
																		0	70	4.6

These islands had less than the annual average supply of rain in 1900. The year was even drier than 1899. There was less than the normal variability in the rainfall on stations at the windward or leeward side of the islands and at high or low elevations. The latter of these factors, altitude, has much more effect than the former aspect on the quantity of rain that falls on these islands. According to an old but accurate précis of St. Kitts, the average annual rainfall is 45 inches in the Basseterre valley, and 70 on the leeward slope of Mount Misery. In 1899, as stated in the last medical report, Basseterre had only 30·07 inches while Molyneux, which has the advantages both of height and a windward aspect, got 80·74.

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

These generalisations are borne out by the following table:—

RAINFALL in the PRESIDENCY in the YEAR 1900.

Months.	St. Kitts.			Nevis.		Anguilla.
	Buckleys.	Olivees.	Mills's.	Cane Garden.	Madden's.	
	Leeward : near sea- level.	Leeward : 490 feet.	Wind ward : near sea- level.	Leeward : near sea-level.	Windward : near sea- level.	
January ...	1·82	1·85	1·13	2·09	0·60	0·25
February ...	1·92	2·18	0·82	1·23	0·62	0·00
March ...	1·16	1·27	1·36	1·42	1·55	0·00
April ...	2·06	3·16	5·54	3·33	3·19	4·69
May ...	2·37	3·86	1·91	0·91	3·50	0·00
June ...	3·05	3·46	3·34	1·95	1·70	7·39
July ...	3·96	4·93	3·92	5·69	2·03	4·48
August ...	3·78	4·82	6·35	4·55	4·56	8·32
September	3·95	5·44	3·83	4·00	2·67	0·00
October ...	6·38	8·61	4·39	5·79	5·51	7·05
November...	4·85	4·10	3·75	3·13	3·85	0·00
December ...	3·78	4·55	3·57	3·86	3·19	7·13
Total ...	39·08	48·23	39·91	37·95	32·97	39·31

ST. KITTS-
NEVIS AND
ANGUILLA,
1900.

There is a curious irregularity in the monthly records of the Anguilla column, which may not be a common feature in the meteorology of that island. For five of the months not a drop of rain fell, and a perfectly dry month, November, is interpolated between two that were very rainy.

No hurricane crossed or approached dangerously close to any of the Leeward Islands this year, but several came near enough to depress our barometers. By far the most memorable of these was the hurricane that swept away Galveston on the night of the 6th September. An interesting list has kindly been shown to me by Professor Alexander of the hourly variations recorded by his barograph during August 30th and the two following days. The usual tidal fall took place from 1 to 4 a.m. of the 30th; the rise from 4 to 10 also occurred, but not in quite the normal way, as it stopped at 9; the decline from 10 to 4 proceeded at a greater rate than is normal during every hour till it reached more than a tenth, 0.12; here it remained stationary till 5 p.m., when the normal rise set in. The weather in St. Kitts was threatening that afternoon, and the wind high, as much as 36 miles an hour. It appears to me highly probable that the centre of the Galveston cyclone passed Basseterre, but a long way to the south, between 4 and 5 p.m. of August 30th.

The effect of a small rainfall in mitigating the endemic diarrhoea and dysentery of the latter half of the year has often been noticed by medical observers and others. It is exemplified in the foregoing returns.

The mortality from phthisis does not seem, in this genial and equable climate, to be definitely greater when the thermometric readings of the cool season of a year happen to be rather below the normal. Nor does a greater prevalence than usual of evening breezes from the north-east, such as are common in the Leeward Islands in the cool months, have any clearly recognizable effect in increasing the death-rate from phthisis.

The mortal and meteorological returns of one little island for only three years can scarcely be fairly cited in corroboration of these conclusions; but they may be mentioned here for what they are worth. The mean temperature in St. Kitts for the first three months of 1898 was higher than that of the same quarter of 1899 or 1900; but there were more deaths from phthisis during that season in 1898 than in the corresponding months of either of the two succeeding years. There was, it is true, a pronounced frequency of north-easterly winds in January, 1898; but fewer phthisical patients died in the first than in the second quarter of that year, though the prevailing wind in the former had no northerly inclination.

SECTION V.

*Malarial Fever.*ST. KITTS-
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Quotidian intermittents are not distinguished from tertian in the returns from the minor hospitals and the parishes; but the distinction is noted in the Cunningham Hospital returns. Quartan intermittent, clearly differentiated from endemic, bilious, remittent, and typho-malarial fever, is rarely, if ever, seen in St. Kitts, except in patients who have recently arrived from Dominica or Antigua.

Before the Pond Swamp was drained by order of Sir William Haynes Smith, severe epidemics of fever, called by the people the "New Town Fever," broke out in the fall of every second or third year, as was noted in a former medical report. Cases of it occurred in the latter months of the intervening years, but not with such frequency as to attract general attention. All the patients had quotidian, tertian, typho-malarial, or remittent fever; none of them quartan intermittent; and an epidemic was rated as mild or severe according as the intermittent or remittent type predominated. The last epidemic was in 1896, and sporadic cases have been markedly less common of late years.

But the Pond Swamp has not been thoroughly drained, though the work has been done as successfully as could probably have been expected under the circumstances. The swamp consists of about 12 acres of black soil, resting on a coralline substratum. It is situated to windward of the town, at the spot where the drainage from the semicircle of hills above the Basseterre Valley seeks an outlet into the sea. The thick pad of humus absorbs the water like a sponge, while the stony subsoil prevents its escape downwards. I suggested many years since that an attempt should be made, as a complement to drainage, to convert this marsh into a park by intersecting it with groves of coconut palms and blue gum trees. A few plants of both these sorts were put along one of the borders of the swamp, but all the gum trees but one were destroyed by the recent hurricanes. It would, perhaps, be advisable to establish in the first instance coconut and oil palms and casuarina trees. These would shelter a future colony of the more delicate eucalyptus; and of this genus, the more vigorous and valuable species could be selected for cultivation. The Casuarina equisetifolia grows very readily near the sea-shore, and its timber is serviceable. It and the other trees just mentioned are ornamental and of economic value. But they are suggested as appropriate for the purposed park because they all grow very quickly and to a considerable height, and would suck up the moisture with great rapidity.

The doctors who practised in St. Kitts some forty years ago were wont to assert that yellow fever visited the island at

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intervals of about ten years. In 1868 to 1869, there was an epidemic which the doctors, and everybody else in the community, declared to be unmistakably one of yellow fever. It was almost exclusively confined to Europeans, white people from Barbados, and Portuguese from Madeira. During the first part of the epidemic all the patients died. Then carbolic acid was resorted to as an internal remedy, and many patients recovered even after black vomit and other ominous symptoms. The fatal cases generally succumbed on the fifth day of the disease. On the fourth day there was almost invariably a fall in the temperature and a mitigation of the sufferings of the patients. This fever was characterised by several or all of the worst symptoms of yellow fever, such as albuminuria, icterus, melæna, hæmorrhages from mucous surfaces, black urine, suppression of urine, and black vomit.

Sporadic cases of a disease apparently identical in nature have occurred in St. Kitts and Nevis in many subsequent years. They have been almost numerous enough in some years to constitute an epidemic, but the patients rarely died, if their constitutions were fairly sound, and they were put under medical care in an early stage of the disease. The treatment of malignant fever by carbolic acid was first adopted in St. Kitts in 1868. A short time after it was independently thought of and tried successfully in the Mauritius. This subject is alluded to in an article in the London Medical Times of March, 1875. The use nowadays of antipyretics of a kindred nature to carbolic acid, but of greater power and certainty of action, seems to have been the chief factor in the remarkable reduction in the death-rate from malignant fever in St. Kitts.

Hernia.

The frequency with which rupture occurs among the black and coloured labourers is shown in the returns from the Cunningham and other hospitals. This frequency is probably largely due to climatic influences. During the Government of Sir W. Haynes Smith, a special grant for the purchase of trusses for the labourers and poor people was voted by the Legislative Council. This was done in response to the representation and request of the medical officers of the Presidency. The supply thus obtained was exhausted about five years ago, but it was not considered advisable that the grant should be renewed. Trusses have now, therefore, to be supplied at the expense of the Cunningham Hospital, that is to say, out of its yearly allowance for instruments and surgical appliances. But if trusses enough to meet the requirements of the people were included in the hospital requisitions very little money would be left for any other sort of surgical apparatus or instrument.

Most of the patients who are admitted into the Cunningham Hospital on account of hernia, are only suffering from slight pain and some difficulty in getting back the displaced gut. Reduction of the rupture by taxis gives little or no trouble in the majority of instances. The free application of chloride of ethyl or methyl by the play of two jets at the same time, seems to contribute to success in more difficult cases. Chloroform is rarely required as an adjuvant to taxis in this hospital, for black patients are generally patient under surgical manipulations. Herniotomy is comparatively rare in the Cunningham Hospital. Three such operations in any one year is the greatest number recorded in its books, and several years may pass consecutively without one.

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The herniotomy in this year's list of operations was performed in a case uncommon enough in character to justify the giving of an account of it here. The patient, a feeble little mulatress, 70 years old, had had an irreducible inguinal hernia for about 20 years. She was seized one night in the year 1898 with very acute symptoms of strangulation of her rupture. Taxis with local application of chloride of methyl was unavailing. It was patiently tried again, but without success, after she had been put under chloroform. The usual incision was then made. It disclosed a mass of omentum, as big as a lemon and somewhat metamorphosed by induration and thickening, over the anterior third of the groin; while its pedicle plugged and was firmly adherent to the inguinal canal and the abdominal rings. There was no appearance of inflammatory action in this mass. On getting it out of the way as much as possible, a purple knuckle of intestine was seen protruding through the crural canal. The usual section of Gimberuats' ligament had to be made before the gut could be returned. After her recovery from this operation, a truss was specially adapted which fitted below the omental tumour and completely prevented the descent of the intestine into the thigh.

Just a year after, in the middle of 1899, and in the night again, this old woman had to be operated on a second time for the same hernia. It was found that taxis could not be brought to bear efficiently on the rupture on account of the interposing omental tumour. There was no difficulty this time in replacing the gut after it had been exposed by the incision, for the constriction was not tight. This indicated the propriety of removing the mass of adherent omentum, but the old woman's state of prostration from the pain of the strangulation as well as from filarial fever, for she had elephantiasis of both legs, made me come to the conclusion that her chance of recovery from the operation would be lost by the additional shock consequent on interference with the adhering omentum. It seemed likely, moreover, that she would take warning by her recent experience and not again neglect the wearing of her

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truss. It was found, as soon as the wound had healed, that it was as easy as after the former operation to make a special adaptation of a truss so as to prevent the descent of the intestine.

But past experiences seem to have convinced this old woman that strangulated hernia was a trivial complaint not justifying the discomfort of wearing a truss. So having allowed just another year to elapse, she laid aside her truss and brought on a third attack of strangulation—this time also in the night. Dr. Edmund Branch was summoned to the case, as I was not at home. He found the symptoms very urgent. Taxis had no effect whatever; an immediate operation was therefore unavoidable. Not having had the advantage of my former experiences of the case, he expected to find a large inguinal hernia, but, on making the usual incision, discovered instead that the intestine was strangulated in the crural canal. It was not a mere knuckle this time, but a definite loop of the ileum that had descended. The difficulty of accurate diagnosis was added to by the enlargement of the inguinal glands from innumerable attacks of filarial fever. Dr. Edmund Branch reduced the intestine without difficulty and without having to cut through any constriction. He then, after consultation with Dr. Fretz, who had anæsthetised the patient, divided the adhesions of the omental mass and cut it off as close as possible to the internal abdominal ring. The old woman made a rapid recovery without any untoward symptom. For the present, at any rate, she never goes about without her truss.

Hæmorrhage from Wounds.

There is only one point in connection with this subject to which allusion need be made here, it is the use of a cupressure as a hamostatic agent. It is often resorted to in the Cunningham Hospital, and, on that account, a few remarks may not seem out of place here on the way in which the principle is carried out.

The particular form of pin employed is described in *The British Medical Journal* and *The Lancet* of September 19th, 1891. This pin is long, slender, and sheathed in a silver or German silver cannula. The instrument is somewhat on the pattern of a hydrocele trocar and cannula, having a bayonet shaped point with a shoulder, beneath which the end of the cannula fits closely. The shoulder of the pin passes readily through the cannula and is as easily drawn back, because the end of the latter is slit for the purpose. The length of the pin and its flat and milled head allow it to be manipulated with facility. A little cup is provided at the upper part of the cannula, so that a ligature may be secured below it to allow the whole instrument to be withdrawn with ease, even if it is buried in the interior of a large wound, such as that resulting from the

amputation of a limb. After the artery is secured, the point only of the pin is retracted within the cannula, like a cat's claw drawn back into its sheath. Its solidity and inflexibility therefore remain unimpaired, while there is no possibility of irritation from its sharp point. The metal of which the sheath is made, not being prone to rapid oxidation, there is no necessity on this account for an early removal.

This little instrument has been found very useful in arresting the bleeding from the immensely thickened and indurated tissues in amputation of the leg for elephantiasis, in which operation it is often very difficult to secure bleeding points with ordinary ligatures. In arresting hæmorrhage from other incisions, especially of indurated surfaces, the use of this pin saves much time and trouble. Its length enables it to be passed under many bleeding points by one movement, and these are held and compressed together by the single ligature passed around the pin. The bleeding from any incision can be quickly controlled with this instrument without the help of an assistant. The lips of large wounds can be quickly and accurately brought together without the trouble of threading needles, and independently of the aid of a second person. The firmness of a pin gives a grip on the depth of a wound that will often save the necessity of securing the cut arteries with separate threads, and thus the ligaturing of the vessels and suturing of the cut are effected by one process. In many cases, likewise, of alarming hæmorrhage from wounds in specially difficult regions, perfect and immediate cessation of the bleeding can be obtained by passing the pin through the sound skin and below the track of the wounded vessel or vessels, and causing it to emerge at a suitable distance so as to allow a ligature to be thrown round the point and head of the pin, thereby firmly, but not too tightly, compressing the tissues together and holding them in a grip that can be regulated by slackening or tightening the ligature.

These pins can be used over and over again, and kept aseptic by boiling after use. They are made for this hospital by Messrs. Arnold & Sons, at a cost of four shillings apiece.

This little instrument may sometimes be of special service to surgeons accompanying troops into action, or in a field hospital where work is being done under pressure of want of time! There is nothing, of course, new in the idea of a cupressure; but there are specialties in the construction of this pin that appear to obviate all objections to that mode of arresting hæmorrhage, and to favour its adoption in appropriate cases. At any rate, Branch's cannular cupressure pin has been in use in the Cunningham Hospital for many years, and has proved itself a valuable addition to its armamentarium.

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Castries,
23rd March, 1901.

REPORT ON FILARIA SANGUINIS HOMINIS.

SIR,

I HAVE the honour to forward, in connection with the Annual Reports, some further notes on *Filaria Sanguinis Hominis* in Saint Lucia.

In last year's report I gave a description of the parental form of *Filaria Demarquaii*, which was kindly furnished me by Dr. Ozzard, of British Guiana. This worm was found by me in the upper part of the mesentery of a native of Saint Lucia. I have since searched carefully for more specimens of this worm, but as *post mortem* examinations on persons whose blood contains the embryo *Filaria Demarquaii* are few and far between, and as the parent worms are excessively difficult to find, I have so far been unsuccessful in getting any more. It is highly desirable and important that further efforts be made in this direction, so as to determine the differences between the parental forms of *Filaria Demarquaii* and the sharp-tailed variety of *Filaria Ozzardi*, B. G. As at present observed there appear to be some marks of distinction between the two species—the alimentary canal running the whole length of the worm, and terminating at the tip of the tail in *Filaria Demarquaii*, whereas in *Filaria Ozzardi* this canal ends in a papilla before reaching the end of the tail, like the parent worms of *Filaria Nocturna* and *Filaria Perstans*. Some other minor differences have also been noticed, but further evidence from more specimens of both species is required to clear up the diagnosis.

As I pointed out in the British Medical Journal of January 21st, 1899, the close resemblance existing between the embryo *Filaria Demarquaii* of Saint Lucia and the sharp-tailed *Filaria Ozzardi* of British Guiana leads one to suggest that both belong to the same species. Further observation tends to the same conclusion. Dr. Daniels, in British Medical Journal of April 16th, 1898, gives the distinctive marks of *Filaria Ozzardi* as “minuteness, absence of sheath, absence of periodicity, power of locomotion, and the possession of a very finely pointed tail.” All these special diagnostic points are characteristic of *Filaria Demarquaii* of Saint Lucia. The body of *Filaria Demarquaii* is long and slender, with a sharp tapering tail. The head is blunt, and on

a few specimens a small fine filiform projection, like the sharp tongue of a serpent, may be detected. The appearance of *Filaria Demarquaii* on the field of the microscope is that of a sheathless worm, marvellously like the sharp-tailed *Filaria Ozzardi*. The fact of *Filaria Perstans* of Africa having been proved to be the same species as the blunt-tailed *Filaria* of British Guiana adds to the probability of a similar identity existing between the different varieties of sharp-tailed *Filaria* in the West Indies. As I said before, this question cannot be decided until more parental forms have been discovered.

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The extremes of life offer no impediment to the presence of *Filaria Demarquaii* in the blood. I have detected *Filaria Demarquaii* on slides taken from children of two years of age. I have also succeeded in finding this embryo in great abundance in the blood of old people. Dr. Manson, in a paper in British Medical Journal of November 7th, 1896, on "*Filariasis* in Samoa," records that in a few slides *Filaria Nocturna* "were present in enormous numbers; four contained 161, 132, 165, and 232 *filariæ* respectively, and in one slide I counted no fewer than 666 *filariæ*." Some of my slides of *Filaria Demarquaii* can be compared favourably with this record, as on one slide taken at noon I have counted 716 embryo *Filaria Demarquaii*, and on eight slides, taken every three hours, I have made out 1,857, which gives an average of 232 on each slide for the twenty-four hours. This possibly unique specimen of humanity was about 90 years of age, and spent most of her time asleep.

On another set of eight slides, taken every three hours, I have computed the number of embryo worms at 1,761, which gives an average of 220 on each slide. The greatest number on any slide in this collection is 412. Cases of this kind are, of course, very exceptional and rare.

If we now contrast the embryo *Filaria Demarquaii* with that of *Filaria Nocturna*, some remarkable differences in their respective movements may be noticed. *Filaria Demarquaii* travels quickly all over the field, and frequently off the field, lashing its tail furiously and continuously, and sending the corpuscles flying in all directions. *Filaria Demarquaii* "locomotes." *Filaria Nocturna*, which is much larger and thicker, moves about in a slower and more dignified style, and although it wriggles its tail about most actively, it is more or less stationary, and does not move off the field of the microscope—in fact, it does not "locomote." Other points of difference between the two are that *Filaria Nocturna* possesses a "sheath," or loose enveloping sack, and the tail of *Filaria Nocturna* is short, like the pared end of a lead pencil, whereas *Filaria Demarquaii* has no sheath, and the tail is long and thin and tapers to a very fine point. *Filaria Nocturna* also enjoys the distinction of appearing in the peripheral circulation only during the night (*Filarial periodicity*), and *Filaria Demarquaii* may be found in the blood at any hour, day or night. Some slides taken

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The important discovery of Dr. Low in connection with the life-history of *Filaria Nocturna* must alter our views as to the manner in which the mosquito infects man with Filarial disease. Previous observers held that water was the medium through which the parasite was introduced into the human body. I explained this mode of infection in my first Report on *Filaria Sanguinis Hominis* (March 25th, 1899). Dr. Low, by finding *Filaria* in the proboscis of the mosquito, has demonstrated the remarkable fact that *Filaria* is directly inoculated into man by the bite of the mosquito. This discovery brings Malarial and Filarial disease into closer relationship, as the manner of transmission is exactly the same, that is by direct inoculation from mosquito to man. The *Anopheles* plays the part of intermediate host for the malarial parasite, and *Culex fatigans* (Low) acts in the same manner for *Filaria*. Both the Malarial parasites and the embryo *Filariæ* undergo developmental changes in the body of the mosquito before being sufficiently mature to infect man.

At a Malaria Conference held in Rome in January, 1900, between many eminent English and Italian physicians, all distinguished investigators of the mosquito-malaria theory, it was decided that a man cannot contract malaria without being bitten by a mosquito, and, further, that a mosquito cannot infect a mosquito. In other words, "No man, no malaria; no mosquito, no malaria." This is confirmed by the observations of Koch in his "Investigations on Malaria in the Dutch Indies." At a place called Tosari, in the Tengger Mountains in Java, no mosquitos are to be found, and here the blood of 82 young children was examined for malarial parasites without finding a single child infected. One old man had malaria parasites in his blood, but he had recently visited a village on the coast where malarial fever was prevalent, and here he must have become infected. Another mosquito-free region without endemic malaria, Professor Koch states, is the Usambara Mountains in East Africa. Here there is no malarial fever, except an

occasional sporadic case introduced from without. In fact, the learned German scientist summarises his remarks with this important statement:—"Where there are no mosquitos there is no endemic malaria."

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Altitude has apparently no influence whatever in reducing the prevalence of malaria, as long as the temperature is not too low for the "Anopheles" to live and thrive. The "Anopheles" then is the direct means of transmitting malarial fever, both benign and malignant, from man to man. This fact has been abundantly proved by the researches and experiments of English, Italian, and German scientists. The Malaria Committee sent to Africa by the Royal Society, in conjunction with the Colonial Office, and by the Liverpool School of Tropical Medicine, and the crucial test applied in the Roman Campagna by Drs. Sambon and Low, of the London School of Tropical Medicine, must convince the public that the only means of protection from malarial fever lies in avoiding, as far as possible, being inoculated by the fever-bearing mosquito.

The South African experts recommend as a general preventive measure thorough and efficient surface drainage of all grounds in the neighbourhood of towns and villages; the construction of *triangular* gutters and channels, so as to prevent collections of stagnant water, or puddles (the breeding-places of malarial mosquitos); the filling up of all wells in the vicinity of houses; and the weekly application of kerosine to infected surface pools, so as to destroy the larvæ of Anopheles. Most of these prophylactic measures might be applied with beneficial effect to Castries and its environs.

As a personal means of prevention the principal is protection from mosquito bite by the regular and scrupulous use of mosquito nets. In answer to the objection that it is impossible to avoid being bitten by mosquitos in the tropics, and that it was useless trying to do so, Dr. Manson urges the argument that because we cannot escape a risk altogether, this is no reason why we should not try to minimise it. He says, "Dr. Daniels, who has recently returned from British Central Africa, tells me that not one mosquito in a thousand in that country carries malarial infection. If a man exposes himself, therefore, in British Central Africa to mosquito bite habitually so that he gets bitten say ten times every night, the chances are that he is effectually inoculated with malaria some four times a year; but if the same man systematically protected himself from mosquito bite, and, in consequence of his care, reduced the chances of being bitten to once a month, he might be a hundred years in British Central Africa before he became infected. This minimising of risk is certainly worth striving for." As the Anopheles bites only at night, protection from the risk of being bitten is all the more easy to carry out.

The measures recommended for lessening the chances of being inoculated by the fever-bearing Anopheles apply also, with some

ST. LUCIA. slight modifications, to the precautions necessary for avoiding the *Filaria*-charged *Culex fatigans* (Low), and probably others of the same tribe.

This tropical pest, the mosquito, has been proved by scientific observation of the most conclusive kind to be the medium of conveying malarial fever (benign and malignant) from man to man, and also to be the means of transmitting Filarial disease (Elephantiasis in all its varieties and horrors) from the affected to those free from this loathsome malady. One would think that this list of charges against the tiny *Anopheles* and *Culex* tribes would be sufficient to alarm the public, and induce them to lose no opportunity of freeing themselves from this pest. Recently, moreover, some American physicians in Havana have apparently established the fact that *Yellow Fever* also can be transmitted by the mosquito, and their experiments with infected mosquitos will, if verified by further observation, prove conclusively the theory first suggested by Dr. Carlos Finlay that Yellow Fever may be added to the list of formidable and fatal tropical diseases propagated by mosquitos.

Dr. Low's arrival in Saint Lucia "to clear up some of the many unsettled points in Filariasis," has been most opportune, as he has also taken advantage of his visit in making himself acquainted with the sister-subject—the malaria parasites of the Island in their abundance. As a skilled and practical observer his experience of the value of absolute immunity from mosquito bites may help to remove some of the scepticism which exists on the subject, and may tend to induce the public to pay more attention to protection from mosquitos, so as to diminish all chances of infection.

I have, &c.,

The Honourable

C. Dennehy,

Colonial Surgeon.

OTHO GALGEY.

Castries,

30th March, 1901.

SIR,

IN connection with my Annual Report for the Anse-la-Rayé Dispensary, I have the honour to submit a short note on the prevalence of malarial fever in St. Lucia, and on the part that mosquitos play in spreading diseases.

The researches of Ross in India, of the Italian physicians in Rome, and the more recent experiments of Drs. Sambon and Low in Italy, and of Dr. Manson in London, have proved conclusively to all thinking people that one kind of mosquito at least (*Anopheles*) is an active agent in disseminating malaria, and is the intermediate host of the malarial parasite.

For more than two years I have made it a rule to examine microscopically, when possible, the blood of every patient suffering from fever, and when malarial fever was diagnosed from the clinical aspects of the case I seldom failed to find one or other form of the malarial parasite, generally the malignant, occasionally the benign tertian, or, more rarely, the quartan, parasite. At first I found very few cases with crescents in the blood—in the first six months I found only one case with crescents—but I believe that was due to my examining dried films only, some hours after seeing the patient. Later, when I made more frequent examinations of wet preparations of fresh blood, I found that crescents were by no means so rare as I had at first supposed.

ST. LUCIA.
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At the same time that I have been examining the blood of patients for malarial parasites, I have been searching for the breeding-places of the mosquitos that spread the disease, and have been more successful than I had anticipated.

As far as is at present known, there are at least eight, probably nine, or more, species of mosquito in St. Lucia. Two of these—*Anopheles argyrotarsus* and *Anopheles albipes*—are, no doubt, the intermediate hosts of the malaria parasite for this Colony. They are very much alike in appearance, but the latter is by far the more common. I have found their breeding-places within a short distance of the dwelling of nearly every person in whose blood I found the malaria parasite. I found the larvæ of *Anopheles* at first on Morne Fortuné, then in the Cul-de-Sac and Roseau Valleys, and later in Anse-la-Raye, on the Choc Road, in the neighbourhood of Castries to the North, East, and South, and near the Vigie. Had I unlimited time at my disposal I believe that I could locate nearly every *Anopheles* pool in the island. Many of these could be filled in or drained, and certain districts, now unhealthy, could be made inhabitable. Of course, this would be a very expensive undertaking, but the gain in health to the inhabitants, and consequent increase in the value of the land, would more than compensate for the expense incurred. I don't pretend to say that malaria would be banished from St. Lucia, but I do say that many of the breeding-places could be made innocuous, and the houses in their vicinity rendered healthy as far as malaria is concerned. I have certain districts in my mind as I write, which, I think, could be entirely freed from *Anopheles* and the malaria of which they are the hosts.

The other mosquitos have not as yet obtained such an evil reputation as the *Anopheles*, but one of them at least has been identified as the host of *Filaria nocturna*. This is the Australian species *Culex ciliaris* of Bancroft, which is believed to be identical with *Culex fatigans*, the common brown mosquitos of St. Lucia, often mistaken for *Culex pipiens*, which it closely resembles.

ST LUCIA. Another mosquito, *Culex fasciatus*, has been accused of carrying the germ of Yellow Fever, and the evidence against this insect is very strong, if not conclusive. This mosquito, I believe, is the same as *Culex taeniatus*, the commonest of all our mosquitos, and the one that bites in the day time as well as at night.

The other mosquitos of this Colony are as yet but little known, but there is no reason to believe that they are less noxious than their pestiferous relatives with which we are better acquainted.

Recent research has shown that mosquitos are the agents by which certain diseases are spread, and to avoid these diseases it is necessary to avoid the bites of mosquitos. Much may be done by destroying their breeding-places, but this, of course, is in many cases impracticable. Most people, however (most Europeans at any rate), can protect themselves by sleeping under nets, but let the mesh be fairly close, and let the net be properly set up, and free from holes. Otherwise the mosquito may find its way inside and introduce malaria, filaria, or yellow fever into the circulation of its victim.

I have, &c.,

ST. GEO. GRAY,

Colonial Assistant Surgeon.

The Honourable
The Colonial Surgeon.

RETURN OF THE STATISTICS OF POPULATION FOR THE YEAR 1900.

	Europeans and Whites.	Africans.	East Indians.	Chinese and Malays.	Mixed and Coloured.	Totals.
Number of inhabitants in 1899	} No information available.					48,650
Number of births during the year 1900.						1,995
Number of deaths during the year 1900.						1,087
Number of immigrants during the year 1900.						
Number of emigrants during the year 1900.						
Number of inhabitants in 1900						49,558
Increase						908

METEOROLOGICAL RETURN FOR THE YEAR 1900.

9808

	Temperature.						Rainfall.		Winds.		Remarks.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in Inches.	Degree of Humidity.	General Direction.	Average Force.	
January ...	146.8	68.7	83.4	69.5		76.4	2.42	72	No observations. Do.		
February ...	138.9	67.7	83.7	68.7		76.2	2.97	71			
March ...	149.0	69.2	84.8	69.8		77.3	3.15	71			
April ...	151.8	70.9	89.2	71.5		80.3	2.82	69			
May ...	151.1	72.2	90.2	72.8		81.5	7.34	70			
June ...	147.7	72.4	89.7	72.8		81.2	6.21	72			
July ...	145.3	72.3	88.9	73.0		80.9	8.09	70			
August ...	150.0	72.4	89.2	72.8		81.0	13.22	74			
September ...	144.4	70.0	87.1	70.1		78.6	7.19	76			
October ...	146.5	71.5	86.7	71.8		79.2	9.85	84			
November...	146.6	69.8	84.6	70.6		77.6	6.81	82			
December...	143.7	69.2	83.5	70.2		76.8	3.18	75			
Means Total	146.8	70.5	86.7	71.1		79.8	73.25	74			

2 X

ST. LUCIA. RETURN of DISEASES and DEATHS in 1900 at the following Institutions :—VICTORIA, YAWS, SOUFRIERE, VIEUX-FORT, and DENNERY HOSPITALS, and POOR ASYLUM.

Diseases.	Yearly.		Remarks.
	Cases.	Deaths.	
GENERAL DISEASES.			
Influenza	116	5	
Febricula	62	—	
Dysentery	17	8	
Malarial Fever—			
(a.) Intermittent {	Quotidian...	134	—
	Tertian ...	163	—
	Quartan ...	43	—
	°Type un- diagnosed.	104	2
(b) Remittent	133	27	° Not specified at Dennery Hospital.
Erysipelas... ..	5	—	
Tetanus	4	2	
Tubercle	4	—	
Leprosy—			
(a.) Tubercular	3	—	
(b.) Anæsthetic	2	—	
Yaws	105	—	
Syphilis—			
(a.) Primary	39	—	
(b.) Secondary	43	2	
(c.) Inherited	2	2	
Carried forward ...	979	48	

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	979	48	
GENERAL DISEASES— <i>cont.</i>			
Gonorrhœa	8	—	
Scurvy	1	—	
Alcoholism	1	—	
Rheumatism	49	1	
New Growth, non-malignant ...	22	—	
New Growth, malignant ...	20	5	
Anæmia	128	1	
Debility	69	23	
Total	1,277	78	
LOCAL DISEASES.			
DISEASES OF THE NERVOUS SYSTEM.			
Sub-section 1.			
Diseases of the Nerves—			
Neuritis	2	—	
Meningitis	3	2	
Congestion of Brain ...	1	1	
Carried forward ...	6	3	

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	6	3	
LOCAL DISEASES—cont.			
Sub-section 2.			
Functional Nervous Disorders—			
Apoplexy	4	2	
Paralysis	15	1	
Epilepsy	28	—	
Neuralgia	14	—	
Hysteria	5	—	
Sub-section 3.			
Mental Diseases—			
Idiocy	1	—	
Mania	2	—	
Melancholia	2	—	
Dementia	3	—	
Diseases of the Eye	19	—	
" " Ear	6	—	
" " Nose	1	—	
" " Circulatory Sys- tem.	102	29	
" " Respiratory Sys- tem.	256	40	
" " Digestive System	166	16	
" " Lymphatic Sys- tem.	6	—	
" " Urinary System	37	10	
Carried forward ...	673	101	

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	673	101	
LOCAL DISEASES—cont.			
Diseases of the Generative System—			
Male Organs	27	—	
Female Organs	23	1	
" " Organs of Locomotion.	8	—	
" " Cellular Tissue	53	—	
" " Skin ...	51	—	
Total ...	835	102	
Injuries, General... ..	5	2	
" Local	163	2	
Surgical Operations	20	—	
Malformations	1	1	
Poisons	2	1	
Parasites	28	—	
Ulcers	148	—	
Pregnant and Accouchment ...	57	—	
No Appreciable Disease ...	284	—	
Total	708	6	
SUMMARY.			
General Diseases	1,267	51	
Local "	835	102	
Other Diseases, &c.	708	6	
Total	2,810	159	

SEYCHELLES,
1900.

No. 18.

SEYCHELLES.

ANNUAL REPORT OF THE CHIEF MEDICAL OFFICER OF SEYCHELLES FOR THE YEAR 1900.

CHAPTER I.—VITAL STATISTICS.

Estimated population, Dec. 31st, 1900. (1) Table 1 shows the estimated population on December 31st, 1899, and December 31st, 1900, and gives the number of persons who arrived and left Seychelles, and the number of children who were born, and of the persons who died during the year.

Birth rate. (2) The birth rate for 1900 is 29·14 per thousand, showing a decrease of 3·14 per thousand against that for 1899.

Death rate. (3) The death rate is 16·62 per thousand, showing an increase of 2·62 per thousand against that for 1899, the average for the past three years being 16·36 per thousand.

Ages at which deaths occur. (4) The following table is also interesting as showing the ages at which most of the deaths occur:—

	1898.	1899.	1900.
Under 5 years	140	121	120
Over 5 and under 70	182	121	173
Over 70	39	33	42
Total	361	275	335

CHAPTER II.—METEOROLOGICAL OBSERVATIONS.

Temperature. (1) The year 1900 was warmer and wetter than the year 1899. The mean temperature being 79·72 against 78·84 for 1899 and the amount of rain being 111·75 inches against 88·41 for the earlier year.

(2) The south-east trade wind began late, not being fully established until the end of May, and only blowing strong during June, July, and August. It then began to fade, but did not finally disappear until the middle of November, after having brought a deluge of rain (22·56 inches in 15 days). SEYCHELLES,
1900.
—
South-East
trade wind.

CHAPTER III.—PREVALENCE OF SICKNESS IN THE DIFFERENT SEASONS OF THE YEAR.

(1) Under this head I have not much to add to my last year's remarks. The marked increase in the cases of diarrhoea and dysentery after the November deluge tends to confirm my remarks on this head in my last report.

(2) The *Ascaris lumbricoides* has been very prevalent during the whole year. It is found alike in adults and children, one woman of 37 having passed 45 of these parasites after one dose of santonin. Parasites.

(3) No cases of malarial fever (not imported) have come under my observation, and the imported cases, some of them landed here seriously ill, rapidly improved and had no return as long as they stayed in the Colony. Malarial
fever.

(4) A collection of mosquitoes was made during the year; the anopheles were not found. Specimens of all the species caught were forwarded to the British Museum. Mosquitoes.

(5) Three cases of typhoid fever came under treatment at the Victoria Hospital. They were all landed from ships in the harbour, and one of them proved fatal. No other cases occurred. Typhoid
fever.

(6) Epidemics occurred during the year. There were a few cases of mumps and influenza at the commencement of the year; chicken pox appeared again, and towards the end of the year there was a sharp epidemic of Dengue fever. Epidemics—
Mumps,
Influenza,
Chicken pox,
Dengue.

The first case that came under my notice, and as far as I can find out the first to come, was that of a young gentleman employed in the Customs Shed. It spread very rapidly and very few escaped.

Most of the attacks were mild and left no after-effects, but in some of the cases the rheumatic pains were severe, lasted a long time, and resisted all kinds of treatment.

* * * * *

ROBERT DENMAN,

Chief Medical Officer.

15th February, 1901.

SEYCHELLES,
1900.

TABLE I.

VITAL STATISTICS.

	Males.	Females.	Total.
Estimated population on December 31st, 1899	10,035	9,603	19,638
Births during 1900	296	302	598
Arrivals during 1900	734	166	900
Totals	11,065	10,076	21,136

	Males.	Females.	Total.
Deaths during 1900	204	157	361
Departures during 1900	426	167	593
Totals	630	324	954

	Males.	Females.	Total.
Estimated population on December 31st, 1900	10,450	9,758	20,208
Net increase	570.		

	Males.	Females.	Total.
Still births during 1900	23	14	37

Vital Statistics—cont.

						1898.	1899.	1900.	SEYCHELLES, 1900.
Births	...	...	...	...	...	596	635	598	
Deaths	...	...	...	...	...	361	275	335	
Still births	...	...	...	...	...	—	39	37	

						1898.	1899.	1900.
Birth rate per thousand	...	...	...	...	...	30.50	32.28	29.14
Death rate per thousand	...	...	...	...	...	18.47	14.00	16.62
Average birth rate for three years						...	...	30.64.
Average death rate for three years						...	...	16.36.

TABLE II.

RETURN of STATISTICS of POPULATION for the YEAR 1900.

							No.
Estimated number of inhabitants on December 31st, 1899	...	...	...	...	...	...	19,638
Births during the year 1900	...	...	...	...	...	...	598
Deaths	„	„	...	...	...	...	335
Immigrants	„	„	...	...	...	...	900
Emigrants	„	„	...	...	...	...	593
Estimated number of inhabitants on December 31st, 1900	...	...	...	...	...	...	20,208
„ increase during the year 1900	...	...	...	...	...	...	570

It is impossible to estimate the race or nationality of the inhabitants without taking a special census. This has not been done since 1891, and is to be undertaken this year.

METEOROLOGICAL RETURN FOR THE YEAR 1900.

Months.	Temperature.				Rainfall.		Winds.		Deaths per Month.
	Solar Maximum.	Minimum on Grass.	Shade Maximum.	Shade Minimum.	Range.	Mean.	Amount in inches.	Depth of humidity.	
January	152	71	84	72.3	11.7	78.8	17.35	5.0	38
February	155	72.8	87	72.6	14.4	79.89	13.20	5.80	19
March	153	71.2	87.6	74.7	12.9	81.14	9.43	6.20	19
April	153.3	73.9	87.7	75.7	12.0	82.11	9.19	5.05	31
May	151	69.8	88.2	73.4	14.8	80.94	3.43	5.30	26
June	145.5	70	85.2	72	13.2	80.05	1.19	6.55	24
July	141.2	69	83.3	71.9	11.4	77.7	2.37	5.45	24
August	144	70.8	82.7	74.0	8.7	78.49	1.12	7.25	30
September	147.5	72	83.7	71.7	12.0	79.38	3.82	6.35	31
October	153	71.8	83.6	72.3	11.3	79.27	6.50	6.40	24
November	153	71	84.0	70.8	13.2	78.9	24.95	5.71	34
December	154	72	85.2	72.7	12.5	79.98	18.62	5.50	35
	150.19	71.275	85.51	72.8	12.34	79.72	111.15 Inches.	5.88	Total Deaths 361

TABLE III.

SEYCHELLES,
1900.RETURN of DISEASES and DEATHS in 1900 at the
VICTORIA HOSPITAL, SEYCHELLES.

Diseases.	Yearly total.		Remarks.
	Cases treated.	Deaths.	
GENERAL DISEASES.			
Dengue	1	—	All landed from passing ships.
Influenza... ..	1	—	
Enteric fever	3	1	
Dysentery	11	—	
Diarrhœa	6	—	
Malarial fever (irregular) ...	4	—	All imported from Mombasa.
Leprosy (Tubercular)	1	—	
Syphilis	16	—	
Gonorrhœa	12	—	
Alcoholism	1	—	
Rheumatism	8	—	
Rheumatic fever	1	—	
New Growth (non-malignant)	4	—	
„ (malignant)	2	2	
Anæmia	6	—	
Debility	8	2	Due to old age.
Carried forward ...	85	5	

Return of Diseases and Deaths—cont.

SEYCHELLES, 1900.	Diseases.	Yearly total.		Remarks.
		Cases.	Deaths.	
	Brought forward ...	85	5	
	LOCAL DISEASES.			
	Diseases of the Nervous system—			
	Paralysis	3	—	
	Epilepsy	1	—	
	Hysteria	1	—	
	Idiocy	6	—	
	Mania	1	—	
	Diseases of the Eye—			
	Cataract	3	—	
	Ophthalmia	1	—	
	Diseases of the Ear—			
	Otorrhœa	1	—	(Mastoid abscess.)
	Diseases of the Circulatory System—			
	Valvular Disease	2	—	
	Aneurism	1	—	
	Pericarditis	2	—	
	Enlarged Spleen	2	—	After malarial fever.
	Diseases of the Respiratory System—			
	Bronchitis (chronic)	7	—	
	Pneumonia	1	—	
	Pleurisy	4	—	
	Asthma	4	—	
	Carried forward ...	125	5	

*Return of Diseases and Deaths—cont.*SEYCHELLES,
1900.

Diseases.	Yearly total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	125	5	
LOCAL DISEASES— <i>cont.</i>			
Diseases of the Urinary System—			
Bright's disease	3	—	
Ruptured kidney	1	1	
Diseases of the Generative Organs.—Male—			
Stricture	2	—	
Fistula	2	—	
Suppurating Hydrocele ...	5	1	
Diseases of the Generative Organs.—Female—			
Atrecia Vaginæ (complete)...	1	—	After parturition.
Ovarian Tumour	6	—	
Ovarian Hernia	1	1	
Diseases of the Alimentary System—			
Constipation	8	—	
Congestion of Liver... ..	3	—	
Abscess of Liver	1	2	
Strangulated Hernia	2	—	
Ischio rectal abscess and fistula—	1	—	
External Piles	1	—	
Injuries—			
Fractured Tibia	1	—	
Injury to knee-joint... ..	1	—	
Carried forward ...	164	10	

SEYCHELLES,
1900.*Return of Diseases and Deaths—cont.*

Diseases.	Yearly total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	164	10	
LOCAL DISEASES—cont.			
<i>Injuries—cont.</i>			
Fractured paletta	1	—	
Synovitis	3	—	
Compound fractures meta- carsal bones.	3	—	
Compound fractures meta- carpal and carpal.	3	—	
Sprained Ankle	1	—	
Ruptured adductors of thigh	1	—	
Contusions	3	—	
Wounds (various)	10	—	
<i>Abscesses, &c.—</i>			
Disease of hip joint	1	—	
Abscesses	5	—	
Whitlows	2	—	
<i>Skin Diseases—</i>			
Ascaris Lumbricoides ...	2	—	
Tchigoes	1	—	Imported from Mombasa.
Itch	6	—	„ „ Mauritius.
Ulcers	8	—	
Boils	2	—	
Confinements... ..	2	—	One case twins.
Malingering	1	—	
	219	10	

No. 19.

TRINIDAD AND TOBAGO.

TRINIDAD
AND
TOBAGO,
1900.ANNUAL REPORT OF THE SURGEON-GENERAL
FOR THE YEAR 1900.Surgeon-General's Office,
Trinidad, B.W.I.,
12th March, 1901.

Appendix E shows the following particulars in regard to (a) the prevalence of disease, and (b) the incidence of disease on estates:—

(a) *The Prevalence of Disease.*

The diseases most prevalent were malarial fever, anæmia, parasitic and skin diseases, and were probably largely due to the conditions under which this labouring population lives and works. The less grave or benign types of diseases were generally present. Apart from influenza, which occurred in epidemic form, there was hardly any communicable disease. Of a total of 23,403 cases of all diseases treated there were:—

Diseases.	Cases.	Remarks.
Typhoid Fever	1	
Erysipelas	1	
Leprosy	5	
Yaws	20	
Syphilis	44	Of which 19 were secondary.

There were only 589 cases of dysentery—an interesting and important feature.

(b) *Incidence of Disease on Estates.*

With the exception of malarial fever on Bien Venue Estate, Oropuche—1,671 cases of malarial fever of a total of 2,932, of all diseases treated; an incidence probably due to the proximity of this estate to the Oropuche Lagoon, a notoriously unhealthy spot—there is no special incidence of any special disease on any particular estate.

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The Couva group of estates contribute the largest number of cases, 6,886 out of 23,403, and show an incidence of sickness out of proportion to their immigrant population. This incidence is not due to the special prevalence of any one disease, but is fairly distributed among the different groups of diseases, and would appear to bear a direct relation to local conditions.

This is a subject which has already been dealt with, and there is no doubt that this high sickness rate is due to the unwholesome water supply, and, although the mortality is comparatively small, the effect of this amount of sickness on the labour of these estates must be very appreciable.

PUBLIC HEALTH.

The usual returns prepared by the Sanitary Inspectors of Port-of-Spain and San Fernando, and the number and nature of the orders served by them under the Public Health Ordinance during the year 1900, with the result, are appended—Appendices F. and G.*

The annual Health Reports from the District Medical Officers are annexed, and from these it will be seen that apart from the rather high death-rate which occurred from May to September, and was entirely due to the influenza epidemic, the public health of the Colony throughout was not unfavourable. Influenza occurred; as an epidemic from March to June, and affected every district.

A special report on this epidemic, prepared by Dr. Dickson, Assistant Medical Officer of Health, forms Annexure A. In order to obtain a record of its prevalence and conditions of development, circulars were issued to Government Medical Officers and private practitioners, asking them to report on their cases, and the replies received from them have been of great use to Dr. Dickson in compiling his report. I take this opportunity of thanking them all for their ready compliance with my circular.

There were mild epidemics of whooping-cough in Port-of-Spain, in May and June; in Grand Couva, in May; in San Fernando, in September and December; in St. Joseph, in December; in Indian Walk, in September and December; and of varicella in Arima, in November and December.

Dysentery was much less prevalent throughout the Colony. The Medical Officers of Arima, Toco, Guaracara, South Naparima, and Indian Walk all remark that dysentery was much less prevalent than in former years.

Typhoid Fever.

With the exception of Guaracara, where the District Medical Officer reports that ten cases of this disease occurred, typhoid fever was certainly less prevalent than in former years.

* Not reprinted.

Malarial Fever.

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—

Malarial fever was much less prevalent throughout the Colony, and in type was generally of the benign variety. In the Colonial Hospital, Port-of-Spain, the proportion of malignant to benign cases was 1 to 10, and a chart is appended showing a decline in the death-rate for the whole island from 3·67 per 1,000 in 1891, to 2·11 per 1,000 in 1899. Four cases of hæmoglobinuric fever occurred in Cedros, and one case in Mayaro, and of these two were fatal. Four cases of pernicious malarial fever—all fatal—were reported from Manzanilla.

Water Supply.

The Medical Officers, with few exceptions, draw attention to the unsatisfactory condition of the water supplies within their districts. The necessity of remedying this has been fully recognized by the Government, and wholesome and plentiful supplies have already been furnished to several of the larger districts, such as Arima, St. Joseph, Tunapuna, and in time no doubt will be extended to the smaller inhabited localities.

Drainage.

Most of the Medical Officers draw attention to the absence of any system of drainage. To remedy this it will be necessary to introduce a Building Ordinance in order that control may be exercised to effect the laying out of villages on some organised plan. Notable instances of this defect in our sanitary law are to be seen in the deplorable condition of many parts of the suburbs of Port-of-Spain, viz., Mucurapo, Belmont, Rose Hill, and Woodbrook.

Tuberculosis.

This disease is receiving careful attention here, and the subject has recently been referred by His Excellency the Governor to a joint Committee of the Board of Health and Quarantine Authority for investigation and report.

As a preliminary to this, Dr. Dickson, the Assistant Medical Officer of Health, has prepared some charts showing the prevalence of the different varieties of the disease, and the incidence on age and sex, accompanied by a short report—all of which are appended as Annexure B.

Yaws.

I think it will be useful now that yaws has taken a considerable extension in Trinidad and Tobago, in spite of the efforts made to combat the disease by means of the dispensary system, to place on record what has been done since the introduction of the Yaws Ordinance, No. 9, of 1896, and to state what it is proposed to do in order to deal with the disease more effectively than has been the case up to the present time.

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The Yaws Ordinance, No. 9 of 1896, came into force on the 11th of May of that year. It was found necessary to introduce this Ordinance for the reason that the disease of yaws, which, up to that time, had been considered of somewhat rare occurrence, was found really to be very prevalent in the Colony, and from the Returns of the Colonial Hospitals, and from enquiries made from the Medical Officers in charge of districts, this was fully established.

The Ordinance in question provided for—

1. The establishment of hospitals and dispensaries for the **treatment of yaws.**
2. **The appointment of Officers to search for yaws.**
3. Authority to order attendance at a dispensary or hospital by any member of the Medical Board, and segregation in hospital by the Surgeon-General, or District Medical Officer, of any person suffering from yaws.
4. **Compulsory notification of yaws.**
5. Certain penalties for breach of the provisions of the Ordinance.

The first step taken was the issue of circular No. 4,057, of July, 1896, to the District Medical Officers, which had for its principal objects the enumeration of the cases of yaws in the Colony, and the selection of localities where dispensaries should be established. Thereupon a list of special dispensaries was prepared, submitted to His Excellency the Governor, and approved by the Legislative Council. This list has of course since that time been modified and added to as circumstances required. A list of dispensaries now in use is attached. It will be seen that dispensaries were established in nearly all the districts, and in some of them several dispensaries.

This plan of treating the disease on the dispensary system only was continued until May, 1899, and the results, as shown in the annexed return (Appendix H.), were not very favourable. In some districts, notably in South Naparima, where the disease has almost disappeared, and in Indian Walk, where it has considerably diminished, the results were not unfavourable. In the other districts the results of the dispensary system have varied very considerably—the numbers at the end of the years 1896, 1897, 1898, 1899, and 1900, fluctuating from 389 in 1896, 464 in 1897, 453 in 1898, 848 in 1899, to 680 in 1900, although during the same years the following numbers were returned cured—453 in 1897, 503 in 1898, 843 in 1899, and 723 in 1900; the total results are thus far from satisfactory. (Appendix H.)

In order to emphasize this in a more marked manner I attach a return (Appendix I.) showing the number of cases treated in different quarters in 1900. During the first quarter there were 963 cases treated, and during first, second, and third quarter, 534 of these cases were cured, yet during the fourth quarter of the same year 880 cases were treated, showing unmistakably what a large number of new cases had occurred.

This shows conclusively that though the dispensary system does effect a considerable proportion of cures it is not likely to effectively deal with the disease within a reasonable time.

In practice the working of the dispensary system is as follows, viz.:—the patient attends once a week, is seen by the District Medical Officer, and receives a week's supply of medicines, which he may either use or not.

There is absolutely no control over the cases, many of whom disappear, as shown in the returns—in the second quarter of 1900 thirty (30) were returned as missing in the St. Joseph, and 35 in the Tacarigua districts. No precautions are possible as to isolation, disinfection of clothing, and personal hygiene, and no care is taken in regard to food.

Had it not been on account of the expense, the hospital system would have been more generally adapted in some of the districts than has been the case hitherto. However, in 1899, the disease became so prevalent in certain parts of the district of Arima, notably in the vicinity of D'Abadie, that the first Yaws Hospital was established, and the results up to the present time have been very satisfactory.

In 1899, out of 112 cases 77 were discharged cured, with two relapses, and in 1900, of 126 cases, 95 were discharged cured, with ten relapses.

As to the advantages of the hospital system over that of the dispensary there can be no question, and in support of this I would mention the case of the Tacarigua Orphan Home. This Home is occupied by about 180 to 190 orphan children, and, prior to the year 1896, yaws had been alarmingly prevalent in the institution for many years. In that year a small hospital was built at the cost of about £400, half of which was paid by the Government. It provided 60 beds, and was placed about 100 yards from the main building on Orphan Home grounds. The results of this system will be readily seen from the following returns.

The hospital opened with 53 cases in 1896.

On December 31st, 1897, there were 37 cases in Hospital.

„	1898,	„	14	„
„	1899,	„	9	„
„	1900,	„	0	„

The Institution is now free from disease, and has been so for some months. In addition to the ordinary remedies very strict regulations with regard to cleanliness have been enforced, and I may mention that the results obtained in the St. Clair Yaws Hospital, Port-of-Spain, prove beyond doubt that in the treatment of yaws generally, cleanliness and wholesome food are the most important factors, and that medicines are only of secondary importance. In order to provide further accommodation for the severer forms of yaws cases, some buildings which were formerly used as an annexe to the Colonial Hospital, Port-of-Spain, and

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known as the St. Clair convalescent wards, were converted on the 1st of April into a Yaws Hospital, accommodating 60 to 70 patients. This has only served in a small way to meet the requirements of a great number of cases, which, I think, ought now, if possible, to be treated in hospital, and in order to provide more accommodation of this nature it has been decided to open a Yaws Hospital at the St. Augustine Estate, near St. Joseph, to afford accommodation for 200 patients. This will probably suffice to meet the requirements of the St. Joseph, Tacarigua, and Diego Martin districts, and so far meet, to a considerable extent, the provisions of the Yaws Ordinance as regards hospital accommodation.

From the returns which I annex (Appendices H. and I.) there are some 600 cases now under treatment in Trinidad. They are principally distributed over the central part of the island and on the North coast, and I estimate that the St. Augustine Yaws Hospital with its 200 beds, and the Arima Yaws Hospital with another 100 beds, when enlarged as proposed, and the St. Clair Yaws Hospital in Port-of-Spain with its 68 beds, making a total of 393, will suffice for that part of the island. Probably it will be necessary to establish a hospital at Toco where there are under treatment 100 cases, and where the disease has for some years been very prevalent.

Tobago.

Yaws has been very prevalent in Tobago for many years. It is quite possible that from its proximity to Toco, the frequent intercourse that takes place between the residents in these places has been a material cause of the prevalence of the disease in the latter place. Up to the end of 1898, the dispensary system was in force under a special Yaws Ordinance of Tobago. Since its annexation to Trinidad the Yaws Ordinance of Trinidad has applied to Tobago, and dispensaries have been established wherever considered necessary.

The returns of cases for the year 1899* were as follows:—

Number of cases treated during the year	...	1,117
„ cured	„	350
„ remaining December 31st	...	767

These returns show that the disease has not diminished, and it has been decided, on the recommendation of the Medical Officers, to establish a Yaws Hospital in the vicinity of Scarborough to afford accommodation for 160 patients.

This hospital is in course of erection, and provision has been made for its maintenance and equipment in the draft estimates of the current year.

* The completed returns for the fourth quarter of this year, owing to the illness of the District Medical Officer of No. 4 District, have not yet been received, but the returns up to the third quarter show that the disease is not diminishing.

The persistent prevalence of the disease in certain centres, such as Tunapuna and Arouca (in the District of Tacarigua), Toco, and D'Abadie, brings into prominence the important part played by local house infection in the dissemination of this disease, and to remedy this the hospital system is the most likely to succeed.

This system would effect the removal of the patient from such local causes, and would afford the opportunity of dealing with the contaminated area by disinfection, &c. While being fully cognisant of the necessity of taking every reasonable measure to diminish this disease, I think I ought to mention that, as far as the labour of the Colony is concerned, it is not to any appreciable extent affected by it—by far the largest number of cases occur in the 5-10 age-period, and only a small number comparatively at the working ages—and I would add that yaws cases are rarely met with in the larger centres of population—Port-of-Spain and San Fernando—in this Colony.

Yaws—Age Incidence.

Table showing distribution at certain age-periods of 3,413 cases of yaws:—

Age-Periods.								Number of cases expressed as a percentage.
Under 1 year								Per cent. 0·5
Over 1 „ under 5 years								23
„ 5 years „ 10 „								40
„ 10 „ „ 15 „								19
„ 15 „ „ 20 „								5·5
„ 20 „ „ 40 „								8·5
„ 40 „ „ 60 „								2·5
„ 60 „								0·6

Infantile Mortality.

The infantile mortality for the year, for the whole island, was 170, and for the town of Port-of-Spain 266 per 1,000. The mean rate for the 10 years—1891 to 1900—for the whole island was 153, and for Port-of-Spain 272 per 1,000. The rate for the town of Port-of-Spain is very high, and I have the subject under consideration.

FRANCIS H. LOVELL,
Surgeon-General.

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ANNEXURE A.

INFLUENZA.

SIR,

Epidemic Influenza, after an absence of four years, appeared in the Colony early in March and continued until the third week of June.

Prevalence.

The first cases occurred in Port-of-Spain, and the disease radiating thence soon became prevalent in every district of the island.

The larger centres of population were most affected—out of a total of 2,017 cases returned, 1,057 occurred in Port-of-Spain and San Fernando.

The following table gives approximately the intervals between the dates of first appearance, and of epidemic prevalence in the different districts:—

District.	Date of first Appearance.		Date of Epidemic Prevalence.
Port-of-Spain ...	First week of March	...	Third week of March.
San Fernando ...	Third week of March	...	Second week of April.
Chaguanas ...	About April 14th ...	...	First week of May.
Cedros ...	About April 20th ...	...	First week of May.
Gran Couva ...	First week of May	...	Third week of May.
Gran Couva ...	Third week of May	...	Fourth week of May.
Guracara ...	Second week of May	...	Third week of May.
Tacarigua ...	Second week of May	...	First week of June.
Toco ...	Second week of May	...	First week of June.

Mode of Spread.

Many instances of the occurrence of the disease in families are given showing the important part played by personal contact, but the most direct illustration of this factor occurred on the introduction of the disease into Cedros. The first case (report by Actg. D. M. O. Dr. Pollonais) appeared in a resident on April 20th, on his return from a visit to Port-of-Spain. A friend from Constance Estate, Icacos, about five miles from

Cedros, visited him on the 21st, and developed influenza. On the 27th a considerable number of free and indentured labourers on Constance Estate were ill, and by the first week of May the disease was generalized over the district.

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Incidence on:—

- (a.) *Age*.—The largest number of cases occurred between the ages of 20 and 30—at the most active period of life. Children were least affected (*see* Chart of Age Incidence). The mortality at these age groups is in direct contrast with this incidence—at the 20-30 age period the mortality was 2 per cent.—under one year it was 23 per cent.
- (b.) *Sex*.—Males were more frequently attacked than females, and were more liable to severer attacks.
- (c.) *Race*.—Generally the whole community was indiscriminately affected, but East Indians appeared to enjoy a comparative immunity.

Relation to Meteorological Conditions.

The epidemic prevailed during the driest months of the year: a relation which also held good in similar epidemics in 1895 and 1892.

From the following table of admissions to the Colonial Hospitals, and rainfall, it will be seen that rainfall exerted no influence on the course of the epidemic, and that the disease prevailed and varied independently of it.

—		Fortnight ending	Admissions.	Rainfall.
Colonial Hospital, Port-of-Spain	{	April 18th	Cases. 9	Parts. 1·20
		May 2nd	59	2·35
		May 16th	94	·71
		May 30th	14	1·70
" " San Fernando	{	April 27th	23	3·68
		May 11th	67	3·53
		May 25th	97	4·07
		June 8th	53	3·63

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Course.

Generally the type was mild and the appearances characteristic. After a short incubation period of 1-3 days fever, temp. 102° - 103° , with severe headache, and muscular pains came on, the subsequent symptoms varying according as the respiratory organs, the alimentary or nervous system was the one most affected. The respiratory type was of most frequent occurrence.

In uncomplicated cases the duration did not exceed eight days. A distressing symptom of frequent occurrence was severe pain, increased on deep breathing—referred to the upper part of the epigastrium. The appearance was very suggestive of extensive pleurisy, but the physical signs of this condition were either entirely absent, or of a mild nature and limited extent. This condition persisted for several days, even after subsidence of all temperature, and was probably neuralgic.

Complications were of more frequent occurrence and of greater severity than in previous epidemics. In the majority of fatal cases the termination was due to an inter-current complication. Out of 920 cases treated in the colonial and district hospitals, complications of a severe nature occurred in 235 cases, or in about one-fourth ($\frac{1}{4}$) of the total cases. Lung diseases occurred most frequently, and contributed 76 per cent. (of which pneumonia gave 46 per cent.) of total complications. Albuminuria occurred in 3 per cent. and acute enteritis in 2 per cent. of the cases.

Mortality.

The effect of influenza on the death-rate varies according as influenza is considered as a primary cause only or in addition as a contributory cause. Taking the death returns of Port-of-Spain only, the direct mortality from influenza was '8 per thousand.

In October, Professor Carmody drew attention to the high monthly mortality in Port-of-Spain for the preceding seven months.

The mean death-rate for January and February, 1898 and 1899, was 26.1 per thousand, and for the same months in 1900, 25.5 per 1,000. In 1899 for the seven months March to September the mean monthly mortality was 30.3 per 1,000, while in 1900, for the same period, it was 40.3 per 1,000. On looking up the returns of deaths, it was at once evident that this high mortality was entirely due to an excess of deaths from certain diseases, which an epidemic of the nature of influenza would most likely effect. This relation is shown in charts.

Chart B. shows the relation of influenza to deaths from lung diseases. The curve of deaths from lung diseases rises with the onset of the epidemic in March, attains its maximum in May, and declines as the epidemic lessens. In May, the month of

highest mortality, viz., 46·5 per 1,000, 41 deaths were returned as influenza, and 43 as lung diseases, while in the preceding year (1899), 28 deaths only were returned as lung diseases. The curves for 1895 show a similar relation between influenza and lung diseases.

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The relation of influenza to the increased death-rate is emphasized in chart C., which contrasts the mean number of deaths from diseases of the lungs during five non-influenzal years (1894, 1896, 1897, 1898, 1899), and the deaths from these diseases in 1900; and also the mean of deaths from certain groups of diseases during the same five years with similar deaths in 1900. These groups are diseases of the lungs, heart diseases (organic), diseases of the kidneys, diarrhoeal diseases and senile decay, and have been selected as those on which influenza would exert a more constant direct or indirect influence. In each instance the curve rises at once on the onset of the epidemic and declines as it lessens.

Sequelæ.

Convalescence was very tardy, and debility (out of proportion to the duration of the disease) and nervous depression were almost constant sequelæ. The condition after influenza was concisely stated by a patient, who said "it is the meanest disease I have ever had."

General Considerations.

The questions, (1) are preventive measures practicable, and, if so, (2) which are those which should be adopted, naturally suggest themselves. Having regard to the difficulty in diagnosing the mild and early cases, and the suddenness with which the disease invades large sections of the community, preventive measures in the strict sense are hardly practicable. There is, however, a large and practical field for precautionary advice with regard to the warding off of complications, etc., etc., the outlook in which, from the generally mild type of tropical influenza, is distinctly encouraging.

J. R. DICKSON,
Asst. Medical Officer, Hospital.

The Honourable
Surgeon-General.

ANNEXURE B.

MORTALITY FROM TUBERCULOSIS.

SIR,

I have the honour to submit a statement, with charts, on tubercular diseases, compiled mainly from the death registers of the Colonial Hospital, Port-of-Spain, for twenty years, 1880 to 1899.

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General Prevalence.

Chart 1 shows the mortality curve of all tubercular diseases, and also the mortality curve of all diseases treated, and the total numbers treated each year.

The tubercular cure rises from a minimum of 52 in 1880 to a maximum of 167 in 1891, declines somewhat in the years 1892, 1893, and 1894, but rises again in 1895, and thence continues high.

The prevalence is more evident if the tubercular deaths are stated as a proportion to the total deaths at quinquennial intervals—

In 1880 the relation was ...	1—8·3
1884	1—4·7
1889	1—4·3
1894	1—5·7
1899	1—5·2
1900	1—5

The death-rates per 1,000 of all tubercular diseases, calculated on the returns of the Registrar-General, for the whole island, for the nine years 1891-1899 were—

1891	3·92 per 1,000
1892	3·51 "
1893	3·65 "
1894	2·84 "
1895	3·07 "
1896	2·92 "
1897	3·30 "
1898	3·10 "
1899	3·01 "

If the increase of population from 1891 to 1899—estimated as 62,717—be taken into consideration, the decline in the death-rate does not represent a very satisfactory amelioration.

In Port-of-Spain, with an estimated population of 47,000 in 1899, and 50,000 in 1900, the death-rates were—

1899	5·43 per 1,000
1900	7·12 "

Prevalence as to Form.

For purposes of convenience, with regard to reference, the deaths have been classified under three heads:—

- (a.) *Tabes Mesenterica*, or *Tuberculosis of the Digestive System.*
- (b.) *Pulmonary Tuberculosis*, or *Phthisis Pulmonalis.*
- (c.) *Generalized Tuberculosis* (including *Tubercular Disease of Joints and Bones*).

If the period of 20 years be divided into quinquennial periods and the deaths in each group expressed as a percentage of the total tubercular deaths, the following distribution is obtained:—

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Form of Disease.	1880-84.	1885-89.	1890-94.	1895-99.
	Per cent.	Per cent.	Per cent.	Per cent.
Tabes Mesenterica ...	1·6	1·6	2·1	5·6
Pulmonary Tuberculosis ...	95·8	94·9	90·1	81
Generalized Tuberculosis ...	2·6	3·5	7·8	13·4

The increasing prevalence of tabes mesenterica, whether due to an actually greater prevalence of the disease or to a more exact differentiation in death certificates, is a fact of serious importance.

The decline in the mortality from phthisis pulmonalis does not represent so real an improvement when taken with the increase in generalized tuberculosis. Out of 2,589 tubercular deaths in the Colonial Hospital (1880-1899), 2,370 were cases of phthisis pulmonalis; and in the town of Port-of-Spain, of 254 and 356 tubercular deaths in 1899 and 1900 respectively, 194 and 237 were cases of phthisis pulmonalis, giving a death-rate in 1899 of 4·12 per 1,000, and in 1900 of 4·74 per 1,000. This prevalence of pulmonary tuberculosis is a matter of some gravity on account of—

1. The infective nature of this form of the disease.
2. The rapid course which, as a rule, it assumes locally.

Incidence as to:—

1. Sex.—Of a total of 2,431 deaths for the 15 years 1886-1900, 1,617 were males and 814 females.

These numbers are too small to warrant the drawing of conclusions, and probably other conditions than a special susceptibility of one sex control the incidence (Ransome).

2. Age.—Two charts are annexed showing the incidence at the various age periods for both sexes. Chart I. for the whole period of 15 years, and Chart II. for the same period, but divided into quinquennial periods.

The curve at first low rises up to the fifth year, declines to the 15th year, then rises steadily to its maximum (747 of a total of 2,431) in the 20-30 age period. It continues high during the next 10 years, then falls to its minimum about the 70th year.

In chart II. the maximum occurs in the 30-40 age period for the period 1886-1890, and 1891-1895, and between the ages of 20 and 30 in the 1896-1900 period.

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Up to the fifth year there were 199 deaths, an incidence in contrast with the 97 deaths which occurred in the 5-15 age period, a period of ten years. The increasing incidence (*see* Chart II.) on the 1-5 age period, together with the increase in *tabes mesenterica*, and the certainty of relation directly and indirectly to food and dieting, forms one of the most important and interesting features of the problem of tuberculosis, the more so as measures for its control are largely within the bounds of practical administration. Having regard to the local prevalence of the disease, and the apparently increasing incidence, the necessity of treating tuberculosis as a communicable disease, and taking measures to control and prevent its spread, is submitted for your consideration.

J. R. DICKSON,

Asst. Medical Officer, Hospital.

The Honourable
Surgeon-General.

APPENDIX E.

TOTAL NUMBER OF CASES ENTERED IN CASE BOOKS; 23,403.

Principal Diseases.

	Number of Cases.
Influenza	623
Malarial Fever	8,254
Rheumatism	655
Anæmia	1,395
Respiratory Diseases ...	706
Digestive System ...	1,330
Skin Diseases	3,883
Parasitic Diseases ...	1,662
Cellular Tissue	809
Local Injuries	653

Districts.	Estates.	Population.	Total Cases.	Influenza.	Malarial Fever.	Rheumatism.	Anæmia.	Respiratory.	Digestive.	Skin Diseases.	Parasitic.	Cellular Tissue.	Local Injuries.	Mortality.
Couva ...	{ Sevilla ... Waterloo ... Exchange ... }	905	6,886	267	2,304	320	461	255	286	784	997	195	164	265
North Naparima...	{ Petit Morne ... Plein Palais ... Harmony Hall ... }	969	3,627	—	1,354	120	158	45	326	630	372	113	165	93
Oropuche ...	Bien Venue ...	386	2,932	36	1,671	36	86	44	73	391	4	339	25	155
Pointe-à-Pierre ...	{ Esperanza ... Mt. Pleasant ... }	597	1,863	12	812	38	37	99	67	445	—	—	76	242
Tacarigua...	{ Orange Grove ... Laurel Hill ... }	682	1,755	81	455	36	199	55	124	299	—	39	—	191

APPENDIX H.

RETURN of YAWS CASES under treatment in the different MEDICAL DISTRICTS of TRINIDAD during the last QUARTER of 1896, 1897, 1898, 1899, and 1900.

District.	Dispensaries where situated.	No. of Cases under treatment during quarter ended 31st December, 1896.	No. of Cases under treatment during quarter ended 31st December, 1897.	No. of Cases under treatment during quarter ended 31st December, 1898.	No. of Cases under treatment during quarter ended 31st December, 1899.	No. of Cases under treatment during quarter ended 31st December, 1900.
Port-of-Spain	Colonial Hospital ...	—	18	18	64	—
San Fernando	Idem ...	—	14	—	21	7
Santa Cruz	... ..	—	3	—	5	—
Tacarigua	Arouca District Hospital...	104	164	98	152	158
St. Joseph	Idem ...	10	26	15	94	38
Arima	D'Abadie, Tumpuna, Cunapo District Hospital.	73	68	47	113	62
Mayaro	... ..	—	—	—	8	3
Manzanilla	Manzanilla ...	70	16	18	67	117
Toco	Toco, Grande Riviere, Matelot, Matura.	47	77	133	139	131

Chaguanaas ...	District Hospital ...	17	1	6	13	28
Couva... ..	Exchange Village, Carapichaima	47	31	16	24	42
Point-à-Pierre	Claxton Bay, California ...	18	10	2	16	12
Gran Couva ...	Tortuga, Preysal ...	—	30	93	63	69
Guaracara ...	White Lands ...	41	21	17	89	39
North Naparima	... ..	—	1	—	—	8
South " ...	Picton Estate ...	12	27	43	20	—
Indian Walk ...	Poole Estate, District Medical Officer's Residence, Moruga.	83	64	65	135	94
Oropuche ...	Sipania ...	22	5	—	1	39
Savana Grande	District Medical Officer's Residence	11	—	—	1	2
Gedros ...	District Hospital, Erin ...	—	—	2	1	1
Bocas	—	22	16	2	12
Diego Martin	38	5	—	14	18
Total...		593	603	589	1,042	880

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APPENDIX I.

RETURN showing the NUMBER of YAWS CASES TREATED in the different MEDICAL DISTRICTS, specifying NUMBER under TREATMENT during 1st QUARTER, 1900, NUMBER CURED in 1st, 2nd and 3rd QUARTERS, 1900, and NUMBER under TREATMENT in 4th QUARTER, 1900.

	No. of cases treated during 1st Quarter, 1900.	No. of cases cured during 1st 2nd and 3rd Quarters, 1900.	No. of cases treated during 4th Quarter, 1900.
San Fernando Hospital ...	4	17	7
Tacarigua	256	86	158
St. Joseph	44	10	38
Arima	69	83	62
Mayaro	—	—	3
Manzanilla	151	28	117
Toco	148	60	131
Chaguanas	12	1	28
Couva	23	21	42
Pointe-à-Pierre	1	2	12
Gran Couva	31	38	69
Guaracara	29	18	39
North Naparima	8	6	8
Indian Walk	166	127	94
Oropuche	—	11	39
Savana Grande	2	3	2
Cedros	3	4	1
Bocas	5	2	12
Diego Martin	11	17	18
Total	963	534	880

RETURN of the STATISTICS of POPULATION for the year 1900. TRINIDAD AND TOBAGO, 1900.

						Total.
Number of Inhabitants in 1899	...	...	...	—		264,814
„ Births during the year 1900	...			10,022		
„ Deaths „ „ „	...			6,841		3,181
„ Immigrants „ „ „	...			18,624		
„ Emigrants „ „ „	...			12,925		5,699
„ Inhabitants in 1900	...	...	...	—		273,694
Increase ...	...	...	...	...	—	8,880

RETURN of DISEASES and DEATHS in 1900 at the following INSTITUTIONS :—COLONIAL, SAN FERNANDO, and DISTRICT HOSPITALS, and YAWS HOSPITALS.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
I.—GENERAL DISEASES.			
Chicken-pox	2	—	
Measles	4	—	
Whooping Cough	13	—	
Influenza	440	66	
Febricula	1		
Enteric Fever	45	18	
Dysentery	276	65	
Malarial Fever—			
(a.) Intermittent—			
Quotidian	40	—	
Carried forward ...	821	149	

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Return of Diseases and Deaths—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	821	149	
I.—GENERAL DISEASES— <i>cont.</i>			
Malarial Fever— <i>cont.</i>			
(<i>a.</i>) Intermittent— <i>cont.</i>			
Tertian	854	1	
Irregular	3	1	
(<i>b.</i>) Remittent	225	18	
(<i>c.</i>) Pernicious	61	19	
(<i>d.</i>) Cachexia	53	5	
Beri-beri... ..	3	1	
Erysipelas	15	2	
Septicæmia	15	8	
Tetanus	1	1	
Tubercle... ..	435	205	
Leprosy—			
(<i>a.</i>) Tubercular	48	—	
(<i>b.</i>) Anæsthetic	75	4	
(<i>c.</i>) Mixed	13	—	
Yaws	452	3	
Syphilis—			
(<i>a.</i>) Primary... ..	16	—	
(<i>b.</i>) Secondary	36	—	
(<i>c.</i>) Tertiary	57	3	
(<i>d.</i>) Inherited	18	10	
Gonorrhœa	109	—	
Bubo	30	—	
Carried forward ...	3,340	430	

Return of Diseases and Deaths—*continued*.

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Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	3340	430	
I.—GENERAL DISEASES—<i>cont.</i>			
Warts	5	—	
Scurvy	2	—	
Alcoholism	30	2	
Delirium Tremens	4	—	
Premature Birth	14	11	
Rheumatism	203	3	
Malnutrition	78	37	
Rheumatic Fever	1	—	
New Growth, non-malignant ...	59	2	
„ malignant ...	13	5	
Anæmia	721	76	
Hæmophilia	1	1	
Diabetes mellitus	13	1	
Debility	286	56	
Old Age	120	46	
Total	4,890	670	
II.—LOCAL DISEASES.			
The Nervous System—			
Sub-section 1.			
Congestion of Brain	8	3	
Cerebral effusion	2	2	
Hæmorrhage	2	2	
Dropsy—			
(a.) Ch. hydrocephalus ...	6	1	
Carried forward ...	18	8	

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Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	18	8	
II.—LOCAL DISEASES— <i>cont.</i>			
Sub-section 1— <i>cont.</i>			
Meningocele	1	—	
Inflammation—			
1. Spinal Meningitis ...	18	11	
2. Tubercular	5	5	
3. Myelitis	1	1	
Abscess of the Brain	3	2	
Softening of the Brain ...	1	1	
Hæmorrhage	1	1	
Sclerosis	1	—	
Locomotor Ataxy	5	—	
Neuritis	2	1	
Sub-section 2.			
Apoplexy	27	11	
Paralysis... ..	14	—	
Hemiplegia	40	—	
Paraplegia	11	—	
Local Paralysis	7	—	
Laryngismus stridulus... ..	2	—	
Infantile Convulsions	25	5	
Spasm of Muscle—			
1. Torticollis... ..	2	—	
Paralysis agitans	2	—	
Carried forward ...	186	46	

Return of Diseases and Deaths—*continued.*TRINIDAD
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Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	186	46	
II.—LOCAL DISEASES— <i>cont.</i>			
Sub-section 2— <i>cont.</i>			
Neuralgia—			
(a.) Facial	19	—	
(b.) Sciatica	6	—	
(c.) Cephalalgia	16	—	
(d.) Enteralgia	19	—	
(e.) Lumbago	14	—	
(f.) Pleurodynia	7	—	
Vertigo	3	—	
Megrim	1	—	
Eclampsia	14	8	
Tetanus—			
(a.) Idiopathic	5	4	
(b.) Traumatic	4	3	
(c.) Neonatorum	9	8	
Epilepsy	53	3	
Chorea	1	—	
Hysteria	53	—	
Tetany	4	—	
Insanity	3	—	
Mania	44	—	
Dementia	30	1	
Idiocy	3	—	
Melancholia	9	—	
Total	503	73	

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Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont</i>			
Class.—Eye.			
Diseases of Conjunctiva.			
Conjunctivitis—			
(a.) Catarrhal	42	—	
(b.) Purulent	10	—	
(c.) Granular	3	—	
(d.) Gonorrhœal	1	—	
(e.) Pterygium	4	—	
Of the Cornea—			
Keratitis	19	—	
Ulcer	42	—	
Opacity	6	—	
Of the Iris—			
Iritis	16	—	
Of the Choroid and Ciliary Body—			
Hypopyon	5	—	
Of the Lens and its Capsule—			
Cataract	70	—	
Amblyopia	1	—	
Atrophy Optic	2	—	
Affections of the Globe—			
Panophthalmitis	14	—	
Amaurosis	8	—	
Carried forward ...	243	—	

Return of Diseases and Deaths—*continued*.TRINIDAD
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Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	243	—	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Eye— <i>cont.</i>			
Of the Eyelids—			
Cyst	1	—	
Mucocele	2	—	
Glaucoma	5	—	
Strabismus Convergent ...	1	—	
Total	252	—	
Class.—Ear.			
Of External Meatus—			
Inflammation... ..	1	—	
Hæmorrhage	1	—	
Otorrhœa	2	—	
Of the Internal Ear—			
Otitis	3	—	
Polypus	3	—	
Total	10	—	
Class.—Nose.			
Inflammation	7	—	
Epistaxis	3	—	
Ozœna	9	—	
Maggots	6	—	
Polypus of	3	—	
Coryza	7	—	
Total	35	—	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont.</i>			
Class Diseases.			
Of the Circulatory System.			
Of the Membranes of the Heart—			
(a.) Pericarditis	3	—	
(b.) Endocarditis	2	2	
Valvular Disease—			
1. Aortic	89	27	
(a.) Regurgitant ...			
(b.) Stenosis ...			
2. Mitral			
(a.) Regurgitant ...			
(b.) Stenosis ...			
3. Pulmonary			
Of Muscular Substance of Heart—			
Fatty	2	—	
Asthenia	1	—	
Thrombosis	1	—	
Aneurism	10	4	
Total	108	33	
Class.—Respiratory System.			
(Not strictly local.)			
Of the Larynx—			
Laryngitis	6	2	
Epithelioma	1	1	
Carried forward ...	7	3	

Return of Diseases and Deaths—*continued*.TRINIDAD
AND
TOBAGO,
1900

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	7	3	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Respiratory System			
— <i>cont.</i>			
Of the Trachea and Bronchi—			
Bronchitis	407	48	
(a.) Acute ...			
(b.) Chronic ...			
(c.) Capillary ...			
Asthma	57	—	
Of the Lung—			
Passive Congestion	3	1	
Pneumonia—			
(a.) Catarrhal	114	46	
(b.) Croupous	95	38	
Gangrene	6	6	
Chronic Pneumonic Phthisis	9	7	
Of the Pleura—			
Pleurisy	45	4	
„ with Effusion ...	19	1	
Empyema	2	—	
Total	764	154	
Class.—Digestive System.			
Of the Mouth—			
Stomatitis	10	—	
Noma	1	1	
Cyst	2	—	
Carried forward ...	13	1	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	13	1	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Digestive System— <i>cont.</i>			
Of the Teeth, Alveoli, and Gums—			
Teething	7	—	
Harelip	1	—	
Of the Dentine and Cementum—			
Caries	5	—	
Of the Dental Periosteum—			
Abscess	5	—	
Of the Gums—			
Inflammation... ..	3	—	
Of Palate and Fauces—			
Hypertrophy of Tonsils ...	3	—	
Sore Throat	36	—	
Ulcerated Throat	3	—	
Quinsy	6	—	
Salivary Glands.			
Of the Pharynx and Oesophagus—			
Inflammation of Pharynx ...	7	—	
Ulceration of " ...	2	—	
Of the Stomach—			
Gastritis—			
1. Acute	28	2	}
2. Catarrhal			
Ulcer	1	1	
Cancer	1	1	
Carried forward ...	121	5	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.

Diseases	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	121	5	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Digestive System— <i>cont.</i>			
Of the Stomach— <i>cont.</i>			
Dyspepsia—			
(a.) Acute ...	113	—	
(b.) Chronic ...			
Gastrodynia ...	1	—	
Of the Intestines—			
Obstruction ...	4	—	
Enteritis ...	30	4	
Intussusception ...	2	1	
Internal Strangulation ...	3	2	
Hernia—			
(a.) Reducible ...	49	4	
(b.) Strangulated ...			
(c.) Inguinal ...			
Appendicitis ...	3	1	
Diarrhœa—			
(a.) Acute ...	305	86	
(b.) Chronic ...			
Constipation ...	65	—	
Colic ...	85	—	
Of the Rectum and Anus—			
Hæmorrhage ...	2	—	
Abscess ...	6	—	
Carried forward ...	789	103	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	789	103	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Digestive System— <i>cont.</i>			
Of the Rectum and Anus— <i>cont.</i>			
Ulceration	3	—	
Hæmorrhoids—			
(a.) Internal	51	—	}
(b.) External			
(c.) Mixed			
Pruritus	1	—	
Prolapsus	9	—	
Stricture	5	—	
Fistula in Ano	7	—	
Of the Liver—			
Hypertrophy	1	1	
Atrophy	2	—	
Congestion	16	—	
Hepatitis	6	—	
Cirrhosis	39	16	
Abscess	12	5	
Jaundice	19	2	
Cancer	3	1	
Of the Peritonæum—			
Ascites	13	2	
Carried forward ...	976	130	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	976	130	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Digestive System— <i>cont.</i>			
Peritonitis—			
(a.) Acute ...	12	5	
(b.) Chronic ...			
(c.) Suppurative ...			
(d.) Tuberculous ...			
Total ...	988	135	
Class.—Lymphatic System.			
Of the Spleen—			
Hypertrophy ...	5	1	
Abscess ...	1	1	
Enlargement of the Lym- phatics—			
Lymphangitis ...	7	—	
Adenitis—			
(a.) Acute ...	13	—	
(b.) Chronic ...			
(c.) Suppurative ...			
Total ...	26	2	
Class.—Urinary System.			
Acute Nephritis ...	7	5	
Bright's Disease—			
1. Ch. Nephritis ...	291	151	
2. Granular Kidney ...			
3. Large White Kidney			
Carried forward ...	298	156	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks
	Cases.	Deaths.	
Brought forward ...	298	156	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Urinary System— <i>cont.</i>			
Urinary Disorders—			
Hæmaturia	15	—	
Chyluria	3	—	
Uræmia	7	5	
Of the Bladder—			
Cystitis—			
(a.) Acute	10	4	
(b.) Chronic			
Retention of Urine	12	—	
Incontinence of Urine	5	—	
Vesical Calculus	5	1	
Total	355	166	
Class.—Generative System.			
Male Organs.			
Stricture—			
(a.) Organic	115	1	
(b.) Traumatic			
(c.) Spasmodic			
Urinary Fistula	16	—	
Extravasation of Urine	7	5	
Of the Prostrate Gland—			
Enlarged	4	—	
Carried forward ...	142	6	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	142	6	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Generative System— <i>cont.</i>			
Of the Penis—			
Œdema	1	—	
Inflammation... ..	1	—	
Elephantiasis	1	—	
Soft Chancres	105	—	
Ulcer	2	—	
Gangrene	1	1	
Phimosis	27	—	
Paraphimosis... ..	9	—	
Priapism	1	—	
Of the Scrotum—			
Œdema	1	—	
Elephantiasis... ..	3	—	
Abscess	13	—	
Sloughing	2	—	
Of the Tunica Vaginalis—			
Hæmatocele	5	—	
Hydrocele	22	—	
Of the Testicle—			
1. Orchitis	39	—	}
(a.) Acute			
(b.) Chronic			
2. Epididymitis	6	—	
Carried forward ...	381	7	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	381	7	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Generative System— <i>cont.</i>			
Female Organs.			
Of the Ovary—			
Inflammation	4	—	
Abscess	3	—	
Cyst	2	—	
Displacement—			
Salpingitis	2	—	
Of the Uterus, including the Cervix—			
Hypertrophy	2	—	
Hæmorrhage	1	—	
Stenosis	3	—	
Inflammation—			
(a.) Metritis	8	—	
(b.) Endometritis... ..	15	—	
(c.) Endocervicitis	6	—	
Fibroids	23	1	
Cancer... ..	18	5	
Pelvic Hæmatocele	1	—	
Displacements—			
(a.) Anteversion	2	—	
(b.) Retroversion	6	1	
(c.) Ante flexion	3	—	
(d.) Prolapsus	7	—	
Carried forward ...	487	14	

Return of Diseases and Deaths—*continued*.TRINIDAD
AND
TOBAGO,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	487	14	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Generative System— <i>cont.</i>			
Distension	1	—	
Of the Vagina—			
Inflammation... ..	3	—	
Fistula—			
(a.) Recto-vaginal ...	10	—	
(b.) Vesico-vaginal ...	5	—	
Ulceration	7	—	
Of the Vulva—			
Prolapse of Urethra... ..	1	—	
Elephantiasis of Labia ...	3	—	
Ulceration	23	2	
Warty growth	2	—	
Cyst	1	—	
Functional and Symptomatic Disorders—			
Amenorrhœa	5	—	
Dysmenorrhœa	28	—	
Menorrhagia	11	—	
Leucorrhœa	8	—	
Metrorrhagia	2	—	
Menopause	2	—	
Total	599	16	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Affections connected with Pregnancy.			
Metritis	2	—	
Abortion	40	—	
Spurious Pains and Cramp ...	4	—	
Miscarriage	2	—	
Still-birth	2	2	
Extra Uterine foetation ...	2	1	
Total	52	3	
Class.—Affections connected with Parturition.			
Hæmorrhage	2	1	
Rupture of Perineum	1	—	
Retention of Placenta... ..	3	—	
Parturition	313	—	
Prolapsus Funis	1	—	
Total	320	1	
Class.—Affections consequent on Parturition.			
Debility	2	—	
Subinvolution	2	—	
Pelvic Cellulitis	8	1	
Delayed Labour	1	1	
Septicæmia	3	3	
Total	16	5	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Female Breast.			
Inflammation (Mastitis) ...	5	—	
Abscess	14	—	
Sinus	2	—	
Ulcerated Nipple	1	—	
Scirrhus of	14	—	
Fibroid Tumour	1	—	
Total	37	—	
Class.—Organs of Locomotion.			
Diseases of Bones—			
Ostitis	3	—	
Epiphysitis	1	—	
Periostitis	3	—	
Caries	12	—	
Necrosis	21	—	
Osteoma	1	—	
Of the Joints—			
Synovitis—			
(a.) Acute	76	1	
(b.) Chronic			
Suppurative Arthritis ...	1	—	
Ankylosis	2	—	
Morbus Coxæ	7	—	
Of the Spine—			
Caries and Necrosis	2	1	
Angular Curvature	2	1	
Total	131	3	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Connective Tissue.			
Abscess	175	3	
Total	175	3	
Class.—Of the Skin.			
Erythema	1	—	
Roseola	25	—	
Urticaria... ..	1	—	
Ecthyma... ..	4	—	
Lichen Tropicus	1	—	
Psoriasis	2	—	
Herpes Zoster	1	—	
Zona	4	—	
Phemphigus	6	1	
Acne	1	—	
Ainhum	4	—	
Sinus	28	—	
Ulcer	567	5	
Cicatrices	1	—	
Boil	2	—	
Carbuncle	6	—	
Gangrene—Senile	16	10	
„ —Congenital	1	1	
Onychia	18	—	
Paronychia	28	—	
Carried forward ...	717	17	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.
—

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	717	17	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Of the Skin— <i>cont.</i>			
Lupus	1	—	
„ Erythematosus ...	1	—	
Infected Granulum	2	—	
Moluscum Fibrosum	1	—	
Purpura	2	—	
Itch	20	—	
Total	744	17	
Class.—Poisons.			
Metals and their Salts—			
Arsenic	1	—	
Irritant	1	—	
Vegetable Poisons.			
Opium	1	—	
Physic Nut	3	—	
Cassava	10	2	
Poisoned Wounds.			
Scorpions	3	—	
Snake Bite	4	—	
Mule „	3	—	
Fish „	2	—	
Dog „	6	—	
Donkey „	1	—	
Human „	5	—	
Total	40	2	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued*.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES.— <i>cont.</i>			
Class.—General Injuries.			
Burns and Scalds	42	8	
Multiple injury... ..	14	8	
Asphyxia	3	2	
Privation	17	2	
Exhaustion	1	1	
Shock	9	—	
Total	86	21	
Class—Local Injuries.			
Wound—			
(a.) Incised	169	—	
(b.) Contused	182	—	
(c.) Lacerated	93	—	
(d.) Punctured	22	—	
(e.) Gunshot	16	1	
(f.) Poisoned	22	—	
Strain or Sprain	26	—	
Injury to Penis	1	—	
Cut-throat	1	—	
To Heart	1	—	
Contusion of Spine	2	1	
Second Section.			
Injuries of the Head and Face.			
Scalp Wound—			
(a.) Bone not exposed ...	28	—	
(b.) „ exposed ...	1	—	
Carried forward ...	564	2	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	564	2	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Local Injuries— <i>cont.</i>			
Second Section— <i>cont.</i>			
Concussion of Brain	2	—	
Fracture of Skull (depressed)...	8	1	
„ Lower Jaw (simple)	1	—	
„ Lower Jaw (com- pound).	2	—	
„ Ribs—without in- jury to Lung.	6	—	
„ Ribs—with injury to Lung.	3	2	
„ Clavicle	3	—	
„ Humerus (simple) ..	9	—	
„ Radius (simple) ...	5	—	
„ Ulna (simple) ...	5	—	
„ „ (compound)	2	—	
„ Radius and Ulna (simple).	4	—	
„ Radius and Ulna (compound).	2	—	
„ Metacarpal bone ...	2	—	
„ Phalanx of finger...	13	—	
„ Femur (simple) ...	7	—	
„ Nasal bone ...	3	—	
„ Pelvis	1	—	
Carried forward ...	642	5	

TRINIDAD
AND
TOBAGO,
1900.

Return of Diseases and Deaths—*continued.*

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
Brought forward ...	642	5	
II.—LOCAL DISEASES— <i>cont.</i>			
Class.—Local Injuries— <i>cont.</i>			
Second Section— <i>cont.</i>			
Fracture of Tibia (simple) ...	6	—	
" " (compound)	1	—	
" Fibula (simple) ...	1	—	
" Tibia and Fibula (compound).	12	1	
" Tibia and Fibula (simple).	8	—	
" Metatarsus ...	3	—	
" Phalanx of toes ...	1	—	
Dislocation of Lower Jaw ...	1	—	
" Shoulder ...	2	—	
" Elbow ...	1	—	
" Finger ...	1	—	
" Spine ...	2	—	
" Hip ...	2	—	
" Knee ...	1	—	
Foreign body in Eye ...	2	—	
" " Throat ...	1	—	
" " Nose... ...	2	—	
" " Oesophagus ...	1	—	
" " Ear ...	9	—	
" " Pharynx ...	1	—	
" " Stomach ...	2	—	
Total ...	702	6	

Return of Diseases and Deaths—*continued.*TRINIDAD
AND
TOBAGO,
1900.
—

Diseases.	Yearly Total.		Remarks.
	Cases.	Deaths.	
II.—LOCAL DISEASES— <i>cont.</i>			
No Appreciable Disease.			
Pregnancy	72	—	
Nil	400	—	
Malingering	1	—	
Total	473	—	
Pulex Penetrans	11	—	
Ascaris Lumbricoides	23	3	
Oxyuris Vermicularis	3	—	
Ankylostoma	98	8	
Tinea	11	1	
Total	146	12	

TRINIDAD
AND
TOBAGO,
1900.

RETURN showing ADMISSIONS, &c., Particulars of Cases Admitted to the VICTORIA MATERNITY WARD during the Year 1900.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
I. Cases Admitted—													
1. Primiparæ	8	13	16	18	18	9	13	14	16	18	13	10	164
2. Multiparæ	11	16	18	15	13	12	13	16	17	25	18	19	193
II. Presentation—													
1. Head	15	28	28	26	24	21	20	24	23	33	25	21	288
2. Breech	3	2	1	1	—	1	—	1	—	1	—	3	12
3. Transverse	—	—	1	—	—	—	—	—	—	—	—	1	2
4. Face	—	—	—	—	—	—	—	1	—	—	—	—	1
III. Abortions and Miscarriages	4	2	1	—	3	—	—	2	5	2	3	4	26
IV. Spurious Labour Pains	1	—	1	6	5	1	7	5	4	4	2	2	38
V. Accidents, Complications, and Sequelæ—													
1. Rupture of Perineum	—	3	1	—	—	—	1	2	—	—	1	—	8
2. Post partum Hæmorrhage	—	—	—	—	—	—	—	1	—	—	1	—	2
3. Placenta Previa	—	—	—	—	—	—	—	—	2	1	—	—	6
4. Retained Placenta	2	1	—	—	—	—	—	—	—	1	—	—	2
5. Puerperal Septicæmia	—	—	—	—	—	—	—	—	—	1	—	1	2
6. Puerperal Eclampsia	1	—	2	1	1	—	—	1	1	1	—	1	9

TRINIDAD
AND
TOBAGO,
1900.

TABLE SHOWING the CAUSES of DEATH during

Cause of Death.	Under 20			20 and under 25.			25 and under 30.			30 and under 35.			35 and under 40.			40 and under 45.			45 and under 50.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Cerebral and Spinal Diseases—																					
Apoplexy and paralysis ...																1		1			
Epilepsy and convulsion ...				1	1		1	1													
General paralysis ...													1	1		1	1				
Maniacal and melancholic exhaustion.				1	1								1	1							
Other diseases of the brain																					
Thoracic Diseases—																					
Inflammation of lungs, pleura, and bronchiæ.				1	1	2			1	1						1	1	2		2	
Pulmonary consumption...							2	1	3							3		3			
Disease of the heart ...																					
Abdominal Diseases—																					
Dysentery and diarrhœa...	1		1	1	3	4			2	4	6	4	2	6					2	2	
Bright's Disease ...																					
Inflammation of stomach, intestines, or peritoneum.				2	2				1	1											
Old age ...																					
General debility ...				1	1		1	1		3	3		2	2		6	6	1	3	4	
Anæmia ...							2	2		4	4		1	1							
Intermittent fever ...							1	1					2	2							
Remittent fever ...																		1		1	
Syphilis ...										1	1										
Pyæmia ...										1	1										
Influenza ...																					
	1		1	4	7	11	2	6	8	3	14	17	7	6	13	5	7	12	4	5	9

the Year 1900, together with AGES at DEATH.

50 and under 55.			55 and under 60.			60 and under 65.			65 and under 70.			70 and under 75.			75 and under 80.			80 and under 85.			85 and up- wards.			Not known.			Total.		
M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
																											1	—	1
				1	—		1	—																			1	2	3
																											1	1	2
				1	—		1	—																			1	2	3
																											—	—	—
							2	2	—	1	1	—															5	4	9
																											5	1	6
																											—	—	—
																											10	12	22
																											1	—	1
																											2	1	3
																											8	5	13
																											2	23	25
																											1	9	10
																											3	2	5
																											3	—	3
																											—	1	1
																											—	1	1
																											2	—	2
																											46	64	110



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